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GENERAL STUDIES (TEST CODE : 759)

Name of Candidate	Anmol Sheer Singh Bedi		
Medium Hindi/Eng.	ENG	Registration Number	24247
Center	Rajinder Nagar, Delhi	Date	2 nd Nov 16

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	12.5	
2	12.5	
3	12.5	
4	12.5	
5	12.5	
6	12.5	
7	12.5	
8	12.5	
9	12.5	
10	12.5	
11	12.5	
12	12.5	
13	12.5	
14	12.5	
15	12.5	
16	12.5	
17	12.5	
18	12.5	
19	12.5	
20	12.5	

Total Marks Obtained:

Remarks:

INSTRUCTIONS

- 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)।
- There are TWENTY questions printed in HINDI and ENGLISH.
इसमें बीस प्रश्न हैं तथा हिन्दी और अंग्रेजी दोनों में छपे हैं।
- All questions are compulsory.
सभी प्रश्न अनिवार्य हैं।
- The number of marks carried by a question/part is indicated against it.
प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
- 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।
- Word limit in questions, if specified, should be adhered to.
प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
- 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।

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?

The Economic Survey 2015-16, as well as 2014-2015 points towards lower tax/GDP ratio of the country.

> when compared with countries with equal economic development, & equal political Development, India's tax/GDP ratio is among the lowest

> when compared with BRICS, India has the lowest tax/GDP ratio, which comes out to be meagre 16.6 % of the GDP of country

Among the 16.6 %,
around 11 % falls under Centre's tax net
5 % falls under State's tax net.
~ 1 % under Local Govt.

> REASONS for lower tax/GDP ratio

- Lower level of tax compliance
- Anomalous political obligation of people towards state
- Lack of effective tax collection by tax agencies and central departments like C&EC, Central Board of Direct Taxes
- Lack of sufficient awareness and public knowledge & education regarding the need of tax filling and returns
- Lack of simple tax laws, make it difficult for people to file their income taxes.

> MEASURES

RV Easwari Committee on Tax simplification

> Tax Administration reforms committee by

Parthasarathi Chome recommended simplification of tax reforms, proactive tax collection policy, introduction of technology and E governance directives to widen the tax base

> The attitude of tax collecting agents need to change, rather than harassment, tax

collectors should invest in bringing change
in public perception

• Simplification of tax norms - like bringing
Good & Service tax, say Saksham portal and
various technology led initiatives can bring
more greater rewards for tax collecting agencies.

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।

The power sector of the country is divided in 3 sections

- 1) Power GENERATION
- 2) Power TRANSMISSION
- 3) Power Distribution

The sectors of power Generation and transmission is mostly controlled by the government & has seen huge progress and surplus over the years.

> Many states have turned power surplus and extensive network of power transmission has been established at various regional centers

> But the power Distribution suffers from huge losses

1. Huge investment required to supply electricity to door (last mile delivery)
2. Lack of public government investment
3. Huge AT&C losses i.e. Aggregate technical and commercial losses.

- Huge power theft
 - Lack of Government incentives and support
- > The World Bank report on "Ease of doing business" has appreciated India's growing reform laden initiatives, that have reduced the time required for setting business in India - partly due to reforms in Electricity sector.

New policy initiative have already been introduced like

1. UDAY - Ujjwala Discom Assurance Yojana which is the single largest reform in electricity sector of the country.
2. National power tariff policy
3. Deen Dayal Upadhyaya Gram Nyata Yojana
4. GARV Application
5. Domestic efficient lighting Programme for promoting LEDs instead of CFL's and incandescent lamps
6. Jawahar Lal Nehru National Solar Mission.

Most of Government initiatives hold tremendous promise, which can revolutionise power sector in the country.

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?

The poor performance of public sector banks arise from a number of reasons.

1. Lack of sufficient autonomy
2. Government interference in the working of public sector banks

In a report, the public sector banks had a total of Non performing Assets which were 14.60% of the total assets, this figure was 4.1% for private sector banks and 3% for foreign banks.

3. Responsibility of extending loans under social responsibility and private sector.
4. Lack of sufficient incentives for high posts in public sector banks, people switch to private sector banks due to various monetary and social benefits.

5. Crony Capitalism and coalition of private companies with managers of PSBs.

6. Inefficient working of Debt Recovery Tribunal, Sick Industries Act as well as SARFAESI, which has led to huge locking of capital

> Steps taken

1.) P.J Nayak Committee instituted by Government, recommended ~~big~~ formation of Bank administration authority as a middle agent between the government and public sector banks to provide necessary autonomy

2. Formation of Bank Board Bureau to provide transparency and accountability in appointment of Heads of PSB.

3. Indradhonus package with ABCDEFG reforms

A: Appointments

E: Empowerment

B: Bank Board Bureau

F: Frame work of

C: Capitalization

Accountability

D: Distressing

G - Governance reforms.

➤ Bankruptcy law reforms committee led by TK Vishwanathan recommended an overhaul of Bankruptcy and other laws.

➤ Reinstitutionalisation of Indian Bankruptcy Board of India, setting up of NCLAT, and Debt recovery tribunals, etc for expediting the unlocking of stressed assets.

IIIrd Part

The Govt has embarked on a policy of consolidation of Indian Banking sector but there are disadvantages.

1. It will lead to inappropriate consolidation of Non Performing Assets in one bank, which will be difficult to deal with.

2. It will severely affect competition, because the other next big bank would be 5 times smaller than SB I.

The consolidation may not be approved by Competition Commission of India.

3. No long term research or study done regarding the benefits of consolidation of PSBs.

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।

India has recently signed the DTAA with Mauritius.

> Mauritius is the 2nd largest investor of Foreign Direct Investment in India. Investors earlier re-routed their investment via Mauritius due to huge incentives and highly liberal tax regime. Sometimes, Black Money was re-routed via Mauritius, without being taxed in Mauritius.

> To tax the investment and capital gains recently government of India signed an amendment to earlier tax treaty with Mauritius.

> It will give India, the responsibility and power to tax Capital Gains made by companies situated in Mauritius and their investment made in India.

- > The tax system, still has liberal features for it seeks to allow lesser tax in the early period till 2018-19^{ad future}, which will be decided by the Government in later period
- > The govt's decision is under the G-20's recommendation of lowering transnational companies under "Base Erosion and Profit Shifting" and non compliance with non cooperation " compliant Financial Action Task Force countries

ADVANTAGES

1. It will widen India's tax Base and tax collection
2. It will ensure, that Black Money i.e Non taxed illegitimate money is not invested in India again by taxing them via the amended treaty.
3. To use the tax money for development initiatives in the country and build necessary infrastructure.

But Soluble taxation treaties, sometimes become
not tax

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।

India is a net information exporter to the world & thus it requires huge government attention to secure, India's cyber security dealing with emergent issues of

1. Cyber Espionage
2. Cyber Crime
3. Cyber Terror
4. Cyber Warfare etc

Thus India requires a stringent ICT framework coupled with technological know how ~~ad~~ to ensure ~~net~~ India's safety ~~ad~~ long term security

EXAMPLES

1) In the recent FBI v/s Apple controversy Apple a 3rd party manufacturers had declined FBI, the access to ~~dr~~ ~~as~~ criminal's phone access. This has huge implications

for India, which is entirely dependent on 3rd party private tech companies like Apple, Samsung etc and 3rd party social networking companies like Facebook etc

> India's Cyber security policy needs to be overhauled keeping in mind the risks involved.

> India has to streamline, cyber security, ICT organisations for a unified government interface & to ensure accountability and responsibility fixation

Plethora of cyber security agencies work in India which includes

1. CERT-IN Computer Emergency Response Team
2. NTRC National Technical research Organisation
3. Indian Cyber Crime Coordination Center etc

- where there is conflict b/w these agencies
- > Thus there, is a need to modernise government infrastructure, streamline govt organisations, invest in human resource capabilities along with research and Development to develop a vibrant cyber security paradigm
- > National Grid, National information Bureau are some of the various govt decisions taken in this regard

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, as those Foreign investors that invest in foreign a country through qualified investors or commonly called as Foreign policy investors, and therefore need not reveal their identity and investment

> The Portfolio investors, are still to be regulated under KYC Guidelines, this ensures their accountability & transparency

> The P-notes and the FII's on the other side can clandestinely invest in other countries without accountability or transparency leading to volatility and re-routing of Black money in the country.

IMPACT

. The investment via P Notes can lead to overall instability in stock market

3. Formation of Asset bubbles and
volatility of Stock Market of native
country to irregular outflows and inflows
of foreign money

3. It makes the financial system which
includes Currency Markets
Equity Markets
Commodity Markets

unstable and volatile etc.

4. It allow cheap foreign money to enter
financial markets, providing money for
growth and investment of various companies.

REGULATORY MEASURES

→ SEBI, the Securities and
Exchange Board of India has decided that
P-Notes and the investors would be covered
under KYC i.e. Know Your Customer guidelines.

→ This decision will bring transparency and
accountability ; discouraging fraudulent transactions

3. It will ensure that there is overall parity between local investors (DOMESTIC) as well as foreign investors, thus bringing in a paradigm change in ensuring financial accountability, transparency and openness to the system.

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?

- > India Generates, world's 5th largest waste in the world. This is because of the life style changes and the proliferation of E-Gadgets and hardware in the domestic markets.
- > While costs related to production is considered by Digital companies, they fail to take into account huge cost of secure and safe dumping of E-waste, which has a series of negative externalities on environment and ecology.
- > the Digital companies have not been held accountable in efficient dumping, recycling and reuse of old devices and technological parts.
- > India, consistently lacks the capability to

reprocess, recycle, and reuse the e-waste,
currently the capacity is only half
what is required.

> The report released by IUCN on E-waste
declares that e-waste has the highest
negative externalities in comparison to other
waste due to toxic nature of materials used
like Carbonides, Mercury, Actinides etc

> The e-waste rule released - FEATURES

- The manufacturing companies will have to mandatorily bring new ways of recycling and reusing their old devices.
- This can be done via buy back offers
- The companies would also invest in bringing awareness regarding harmful effects of old electronic waste and their effect to human health.
- The Government will invest in providing incentives to private sector in building e-waste

recycling centers which will be regionally spread all across the country.

- > Segregation and separation of E-waste, along with efficient disposal will be the prime responsibility of E-waste collecting agencies.

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।

Terror groups are trans-national actors with a highly centralised, hierarchical and modern organisational structure

- > They have specialised agencies that deal with financing - external trade and a highly complicated funding and investment system.
- > They have highly sophisticated employment and recruitment structure, much similar to Multi National Corporations and also have links to STATE as well as other Non-state actors.
- > Globalisation has brought a paradigm change in working of terrorist agencies for they now have global markets in relation to drug trafficking and employment.

and topple international organisation via methods of coercion or violence.

→ Several organisation like Islamic State in Syria, Al Qaeda, Taliban, Harkat al Mujahideen, Haqqani Network have global organisational structure and international support in waging asymmetric warfare

- Use of technology for
 - Radicalization
 - Propagating belief systems
 - Recruiting people

has been extensively used by these organisations.

- Similarly, Use of liberal trade & transit routes have been used by them to expand their networks.

Paris attacks, Belgium attacks are examples of the expanding Jehadi Network in Europe etc.

- Use of Drug and Human trafficking, along

with illicit trade in oil via black market
has been proactively employed by companies.

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 an innovative device used by households to add their individual production of electricity (via) use of recyclable - renewable energy resource like Photo voltaic cells, Wind energy which is then added to common electricity Grid of the Electricity Distribution Organisation.

It allow people to use the produce distributed electricity and pass on the surplus energy to common grid

> This helps in augmenting energy resources

> Use of renewable energy resources, much in line with National Solar Mission and India's INDC's at the UNFCCC COP21 Paris.

> Lower the dependence of state electricity and employ cheap electricity production methods

Some limitations,

> Since the electricity production is distributed it might lead to innumerable sources, which will not be efficiently managed by Electricity department

> It can lead to fluctuations of power load due to distributed production

> India lacks the technology to add distributed electricity manufacturing to central Grid.

> Huge cost of installations of Photo Voltaic technology and high operating costs.

While the Distributed power production is an innovative idea, it has several pertinent limitations that need to be addressed.

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।

The Monsoon, the lifeline of India's Food security and agriculture sector, in recent years shows strange & arbitrary behavior due to various reasons and determinants

*
CHALLENGES

1. Monsoon, unlike earlier though it dependent upon Global phenomena, this is varied by several global factors.
2. The unpredictable & arbitrary behavior of La Niña and El Niño and strange pressure differences between Tahiti (Pacific Ocean) and Darwin (Australia) due to climate change etc.
3. The lack and deficient technology to accurately measure the effect of Localized & regional phenomena on Monsoon.

4. The unpredictable Indian Ocean Dipole Movement due to Global Warming has severely weakened Indian Monsoon.

5. The Indian Ocean waters being severely warm in comparison to land has also led to more precipitation on ocean rather than land surface.

→ Indian Meteorological Department has shifted to a completely different measurement paradigm, to accurately analyse and disseminate monsoon prediction analyses.

1. Use of Change in traditional terms and definitions to factor in unpredictability of Monsoons

2. Removal of word "Drought" and replacement with word Deficient Rainfall to fully reflect monsoon changes

3. Normal Monsoons declaration if rainfall is around 95-102% of Monsoon.

→ Above Normal if above 102% of average

accumulated weight of Monsoon

> Employing dynamic mathematical models,
improved technology and remote sensing & space instruments with support of space satellites
will bring much needed improvement in
capabilities of IMD to successfully measure
Monsoon

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।

→ Compensatory Afforestation Fund, was developed & institutionalised to allow ^{conversion of} acquired forest land by private or public sector corporations for mining or other purposes, on the premise that equal amount of other land will be developed and afforestation will be done to compensate for the loss of forested land.

→ The funds under CAMPA were lying unutilised Rs 40,000 crores, because it required parliamentary approval to be used.

→ The new bill passed, allows the earlier money to be merged with the Public Account of India "PAC", requiring only the approval of Finance Ministry.

→ This has resulted in several disagreement by local people, civil society activists which

have condemned the top-down - strict hierarchical approach of Govt

- It fails to take local tribal people as stakeholders in an activity that has considerable stake in their lives
- Also the Govt has redirected exposure of governing sector as well as executive committee without the members of NGOs or civil society

RESOLUTION

- There is a need to involve local people who are displaced due to eviction caused due to development initiative taken by corporations.
- The process has to be much more inclusive, sustainable and participatory. i.e. it has to be converted into a bottom-up approach
- Stakeholders need to properly accounted while taking any further decision. This can be done via Social Impact Assessment - Social audit.

The Forest use by - Scheduled Tribes Act 2006
is a prominent ex^mple of use of local advisory
and participation in taking decisions.

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 रुद्ध 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।

> India's new IPR policy '2016', continues to be entirely & influenced & based on early Intellectual Property Rights policy. Only minute changes in text have been brought and law governing the same continues unamended.

1) The IPR policy continues to consider the principle of "Compulsory Licensing" which is compliant with WTO trade policy regulations, allowing the government to resort to compulsory licensing in events of "national emergency"

2) The IPR policy also keeps Section 3(D) of Indian Patents Act that disallows use of minute improvement to account for a new patent - COVER GREENING OF PATENTS.

3 New IPR policy hopes to make people aware about IPR policy and intellectual property limitations

4 The Startup / Standup India policy will gain due to new IPR policy that seeks to provide free legal help in filing up of new "Intellectual property" to new entrepreneurs.

5 The IPR policy discards giving patents to LCRI computes related intervention and new models developed in Financial & Mathematical Models

> The new IPR policy has been balanced keeping in mind India's necessary concerns and need for promotion of patents & intellectual property

• It gives state the power to use extra-ordinary powers at times of extreme public emergency like Compulsory Licensing but also gives freedom to promote necessary

intellectual property protection.

> New "utility patents" have also been formalized by Govt, recognising mechanical improvements made by MSMEs to promote innovation ~~make~~ in the MSME sector.

The investors need to be given encouragement to invest in the country and government has to provide necessary guarantees, while it evokes use of compulsory licensing.

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।

Frequency of Droughts and Floods have increased due to arbitrary or unpredictable change in climate caused due to anthropogenic activities or natural causes

1. Unpredictable behavior of Monsoons due to global phenomena like El Nino, La Nina.

2. Large Glacier melting due to Global warming, leading to floods in lower stretches of flood plains

3. Construction of Dams which ^{do} ~~are~~ not take into consideration - long term consequences has also caused excessive siltation leading to ~~excess~~ floods to rise in ground level of river basins.

4. Reckless or inefficient use of water resource, to grow water guzzling crops

in areas of scarce rainfall has led to problem of water scarcity

5. Exploitation of water resources - especially underground, has led to drought like conditions

6. Extensive cutting of trees - degradation of forests has also led to drought.

→ The preparedness levels continue to be in disregard of changing conditions

1. Lack of Govt initiatives to bring change in the existing condition or reforming the practice of cultivation of water intensive crops

2. High dependence on Monsoons, limited use of irrigation

3. Lack of awareness and knowledge related to Deforestation and excessive use of artificial fertilisers and inorganic chemicals.

→ The Government needs to provide holistic, integrated, policy driven initiatives

to reduce the menace of droughts and floods which severely affect local people causing distress and displacement.

• Response, Recovery, Mitigation and Preparedness and proper accountability is required to proceed forward.

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।

The Govt has recently instituted Deepak Mohanty Committee as well as Nachiket Mor Committee on bringing reforms to promote financial inclusion

The various efforts made by Govt introduce

- 1) Institutionalisation of Small Finance Banks
- 2) Institutionalisation of Payment Banks
- 3) Setup of UPI Unified Payment Interface by National Payment Corporation of India Ltd
- 4) Implementation of Pradhan Mantri Jan Dhan Yojana, opening record number of govt accounts to promote financial inclusion.
5. Opening up of Sukanya Samriddhi account for Girls and providing concessional

interest.

All, these ~~to~~ steps were recommended by early mentioned committees.

1st Part

→ while India has been very close to achieving universal primary enrollment in primary schooling sector via initiatives of Sarv Shiksha Abhiyan, Rashtriya Madhyamik Shiksha Abhiyan, there is currently lack of Financial inclusion, that restricts capital to poor people.

→ huge unorganised sector - high interest rates exploit poor people

→ Overall, it is extremely important & integral to promote Financial inclusion, which provides loan at cheap interest rates and ensures that there is transparency and objectivity of contract.

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 has embarked on a new initiative to indigenise India's defence industry. India is the largest importer of Foreign weapons in the world, which is *thrice that of China.

→ Indian Tax payer's money has been incessantly Ruined by US Military Industrial complex.

→ The Defence industry seeks to make India a military technology export hub. This has been promoted via amending Defence Procurement Policy.

FEATURES

1. only military goods that are significantly designed in the country and materials sourced from local domestic industry would be procured by Defence Ministry. A 60% - 40%.

Ratio has been introduced for design and domestic sources

- Any Foreign company has to invest significant amounts of money to ensure that there is technology transfer and promote India's Military Industrial Complex

- There will be open - transparent & competitive bidding for contracts of Defence Industry to abolish corruption and unfair practices.

- Deals like Manufacture of "BRAHMOS" & acquiring of French submarines - through technology transfer to be manufactured by DCNS and India's Mazagon Shipyard Ltd are some of the examples.

- Recently "Rafael" acquired from France will invest significant amounts to increase technological know how of domestic industry.

- Similarly the govt has announced 100% FDI in defence industry fully incentivising

production of weapons by Foreign companies using materials from defence & domestic industry.

CHALLENGES

- The technology transfer process may not significant, since countries might not be willing to share it with India
- Diversification of Defence Manufacturers may give other countries ~~the~~ power to influence India's future trade
- The foreign contractor can release secret information, this can lead to loss of strategic benefits involved in procurement

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।

- Digital technology has expanded due to easy use, lower logistical costs, wide proliferation of extensive globalisation & exchange of info

MOOCs

- Digital technology has been used to transform Higher Education, with availability of
 - online professional educational programmes & certification
 - skill Development programmes
 - The Govt has also taken several initiatives to promote use of e technology and Digital interfaces to proliferate educational knowledge
- Several programmes are
- 1) SWAYAM initiative to provide lectures of professionals and teachers all

across the world to local students.

- GIAN initiative

to provide lectures of IIT level professors free of cost to other students.

- Imprint initiative - Impacting ~~new~~ research and innovation in various engineering and technological institutes.

MOOC's can bring a revolution in education sector due to lower costs, high quality and can displace traditional methods of learning and teaching pedagogy.

But, for MOOC's to become successful there is a need to finish:

1. Digital Divide

2. Provide Basic education to poor & illiterates

3. Successfully integrate MOOC's in Education sector.

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।

* National Civil Aviation policy has brought a paradigm change in India's civil aviation sector.

The NCAP 2016 Features

1. A cap of Rs 1200 for 30 Min flight and Rs 2500 for 1 hour flight to boost domestic flight and aviation sector.
2. Aims to develop India the 3rd largest aviation market by 2022
3. Develop new fields airport at a cost of Rs 50 crore & Rs 100 crore to incentivise regional connectivity. The airports will be built by Airport Authority of India.
4. "Open Sky" policy with other SAARC countries on reciprocal basis to boost regional connectivity with other countries.

5. Discarding 5/20 policy, and bringing new policy making it mandatory for aviation industry ~~skits~~ to company to maintain 20 planes for domestic sector or 5% whichever is more.

6. Using 2% cess for funding Regional Connectivity scheme. This was ~~and~~ later amended, with Govt promising to invest from available resources.

The NCAP recognises the rippling advantages of developing domestic civil aviation because it leads to more employment and has several other benefits.

- > It will also give benefits to the country with foreign exchange received via developing tourism industry by bringing down logistical costs involved in transportation of people & goods.

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।

> India has the 3rd largest number of startups in the world. This is because of huge entrepreneur ability of Indians and several potential indicators of growth in India's economy.

> The startups usually have certain features and unique characteristics

1) They intend to use e technology, Digital technology to promote their business.

2) ~~Now~~ Many of them, use new innovative technology with ability to solve common problems faced by people

3) Startups, if logically designed & developed have ability to provide high returns on investment.

4. Startups require huge incentives and an ecosystem for growth and development in form of Legal aid, tax breaks and liberal market rules

5. Startups provide ideas to solve future problems, provide employment, build human resource capabilities

→ Start up India program is India's flagship program to incentivise startups

• SEIU - Self Employment and Talent Utilization along with AIM - Aatmanirbhar Mission

seeks to create preferable ecosystem

for growth of startups in the country.

• Govt will provide tax incentive for first 5 years.

• Govt has vowed to invest Rs 10,000 crore

to provide initial investment to startups and provide legal and financial help

• Also, govt will provide tax incentives to Angel investors and will be allowed to work with liberal environmental and

Labor Issues

- Govt will preferably, also promote new businesses by SC's/ST's by providing both financial and technological help.

CHALLENGES

- It requires careful planning and innovative strategy to market product
- It requires a proactive bankruptcy policy due to high risk and failures involved.

The returns from startups may not be equal to investments made, so it requires time.

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 based on realizing the usages of Methanol in various sectors.

> Methanol as a fuel is made up of single carbon alcohol, has high inflammation, high heating capacity, lower costs, and wide availability.

> Methanol can be produced via bio related food products and their successfull fermentation.

> they have unique advantages in fertiliser industry and used as substitutes to other compounds

> They can be mixed with petrol or diesel as a alternative fuel

→ Environmentally ~~they~~, it can be produced ~~without~~ via renewable form using ~~the~~ bio-agricultural goods like Castor, cassava, sugarcane and other auxillary products.

• The low costs make it easily accessible,
and being a clean fuel it provides advantages

COMPARISON

• Methanol when compared to other fuels

1) Methanol's oxidation leads to CO_2 , CH_4
while H_2 is purely eco friendly, releases CO_2

2) H_2 has lower heat capacity & has
higher risks of inflammation, which
reduces its use

3. When compared to Ethanol, Methanol
is more inflammable, high heating capacity,
more cleaner.

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.

आगमेन्टेड 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 & Virtual Reality are modern technological developments that seek to revolutionise visual technology, affecting the way people perceive action and entertainment

*
→ Virtual Reality and Augmented Reality, have been used in modern gaming, providing surreal experience of live action, with full physical and emotional participation of gamers

→ while virtual reality, is based on creating traditional setup, sound and scenes with visual support, but Augmented reality has personal participation - physical depth and real experience through the use of 3D visual screens, motion enabled cameras.

real time visual media and sound system.

It is a new generation of technology to
provide genuine experience of Gaming reality.

These technologies are not about gaming
because they can alter the way people
assess, communicate, analyse and express
their feelings to others.

- > They can be integrated with Television
and various communication applications.
- > They can bring innovation in people
learn and visualize reality. They can
be utilized as part of MOOC's or Health
Sector providing Highly alternate systems
for perceiving the reality

