



# VISION IAS

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## GENERAL STUDIES (TEST CODE : 759)

Name of Candidate	Amit Jain		
Medium Hindi/Eng.	English	Registration Number	31449
Center	ORN	Date	24/10/16

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

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।

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103, 1<sup>st</sup> 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 has the lowest tax to GDP ratio of nearly 16% among countries with a similar per capita income on PPP basis. The reasons behind this low ratio are -

- (1) Small taxpayer base - less than 4% of people pay any amount of income tax
- (2) Tax expenditure - multiple exemptions to corporate sector & huge revenue is foregone
- (3) Parallel Black money economy - nearly \$460 billion in black money stored abroad in tax havens
- (4) Poor regulatory regime in tax compliance
- (5) Disparity between different states in indirect tax laws, further reducing tax compliance & tax evasion

The govt has time & again taken multiple steps to increase the tax collection & enforce tax compliance. Few significant are -

- (1) Income Declaration Scheme, 2016 - a chance to declare black money with a penal rate & no prosecution charges
- (2) Voluntary Disclosure Scheme, 1999 - Similar to IDS, brought significant tax revenue
- (3) Introduction of Goods & Services Tax (GST) - will consolidate entire country into a uniform indirect tax regime, thus increasing tax compliance & revenue
- (4) Digital India Unified Payment Interface - a digital & cashless economy → less tax evasion → more tax revenue
- (5) Bringing more people into income-tax net by reducing exemptions

As India faces a resource crunch to develop its social sector, infrastructure buildings, it needs to overhaul its tax

policies to bring in much needed resources.

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 Indian power sector, being one of the largest in the world, ~~faces~~ is plagued with a plethora of challenges.

### Challenges of Power Sector

- (1) Abysmal condition of distribution companies (discoms) — In huge debt & loss making
- (2) Huge AT&C (Aggregator and technical commercial) losses
- (3) Lost in the Transmission
- (3) Coverage of far-flung areas — Still many villages are not covered with transmission grids
- (4) No coordination between gencoms, transcoms & discoms
- (5) Cases of theft of power — further reducing the profitability of electricity companies

(6) Low proportion of renewable power sector - solar, wind, biomass etc.

The govt has taken multiple steps to re-vitalise the power sector -

(1) Ujjwal ~~Assa~~ Discorn Assurance Yojana (UDAY) - by sharing of debt between discorns & State govt, the discorns profitability is improving

(2) Separation of feeder under Deen Dayal Upadhyay Gram Nyata Yojana (DDUGJY) - results have been promising in Gujarat

(3) Increased thrust on renewable energy sector - Nation Solar Mission target of 100 GW of solar power by 2022

(4) International Solar Alliance - collaboration with ~~most~~ countries between Tropic of Cancer & Tropic of Capricorn to give boost to solar power

~~(5)~~ For India to grow all round development, access to power is a basic necessity.

(1) Classification of various types of power plants  
 (2) Classification of various types of power plants  
 (3) Classification of various types of power plants  
 (4) Classification of various types of power plants  
 (5) Classification of various types of power plants  
 (6) Classification of various types of power plants  
 (7) Classification of various types of power plants  
 (8) Classification of various types of power plants  
 (9) Classification of various types of power plants  
 (10) Classification of various types of power plants

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 banking sector has been facing a multitude of challenges - the most fierce being the problem of Non-Performing Assets. There are many reasons behind this ~~the~~ problem -

- (1) Governance issues - no proper due-diligence while granting loans to infrastructural projects
- (2) Repeated provisioning - renewal of loan amounts & duration despite slow progress of projects
- (3) Capital deficiency to meet BASEL-III norms
- (4) Fierce competition from private sector banks
- (5) Inefficiency of staff, leadership & undue interference of govt in management.

Steps taken by the govt & RBI

- (1) Indradhanush Scheme - infusing 27,000 crores in capital-ridden banks to revive their profitability
- (2) Asset Quality Review - by RBI to clearly differentiate between profitable & loss-making assets.
- (3) Systemic Scheme for Sustainable Structuring of Assets (S4A)
- (4) Strategic Debt Restructuring
- (5) 5/25 Provision for restructuring loans.
- (6) Consolidation of 4 associate banks & Bihartya Mahila Bank with SBI

The govt has approved the merger of associate banks with SBI in order to revive the profitability of Public sector banks.

The benefits of consolidation

- (1) The new SBI will be among the top 50 banks in the world - global recognition
- (2) Financing huge infrastructural projects - which can't be done by small banks

- (3) Increased efficiency of banking personnel, as single command of leadership
- (4) No duplication of services provided by multiple banks
- (5) deeper rural penetration - financial inclusion

### Risks of consolidation

- (1) As RBI has declared SBI as Domestically Systematically Important Bank (D-SIB), its failure can cause breakdown of entire economy & banking sector
- (2) No competition for services provisions - increased cost & inferior quality to consumers
- (3) Problems of trade unions opposing this merger - administrative issues
- (4) Shadowing private sector - as no private bank of this size

The long term benefits clearly outweigh the short term risks. Hence, consolidation is a positive move given the current state of public sector banks in India.

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 signed Double Taxation Avoidance Agreement with Mauritius & Singapore to avoid double taxation on corporate enterprises having presence in both countries. But it has become a source of multiple problems -

- (1) Round tripping of money - as taxation laws of Mauritius are very relaxed
- (2) Double Non-taxation - Companies set up shell companies in Mauritius to avoid taxation in India, & there is practically nil tax rates in Mauritius
- (3) Treaty Shopping - misuse of treaty for storing black money abroad
- (4) Concentrated FDI - low taxation in Mauritius & Singapore has resulted in 50% of India's FDI coming from these two countries alone.

The govt has recently amended the DTAA provisions with Mauritius & similar amendments will apply to Singapore treaty as well.

- (1) Source based taxation :- India can now tax ~~of~~ companies in Mauritius too which aren't paying taxes in any country
- (2) Relaxation window till April 2017 to deposit tax at current rate, after which penal tax rate would apply.

### Advantages of the amendments

- (1) It will curb the practice of round-tripping of money
- (2) It will also put a check on storing black money in these tax-havens
- (3) No advantage for creating shell companies
- (4) Increased govt tax revenue, which can be used in social sector development
- (5) It would compel the companies to follow tax compliance norms

Thus, with these amendments in DTAA, India has set an example for corporate firms which evade taxes by round tripping & moved one step closer in conforming with OECD's Base Erosion & Profit Shifting norms.

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।





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।

P-Notes are overseas derivative instruments which are used to invest in the capital markets of a country through FIIs without disclosing the identification of the investor.

### Impact on financial system

- (1) They bring in capital investment in the money markets & contribute to its growth.
- (2) They also help in creating investment opportunities in venture capital sector, essential for startup sector.

But P-Notes have largely been used for re-routing illegal money & tax evasion.

- (1) As the identity of the investor is not disclosed, they aid in practices of bringing black money into Indian economy & money laundering.

- (2) SEBI's approval is not required in investing in P-Notes, hence they also aid in tax-evasion.
- (3) Since P-Notes are invested in FPIs, they bring in a volatility in the stock capital market, thus fluctuating the system's stability.

The SEBI has recently tightened the regulatory measures for P-Notes. It has mandated KYC norms for investors in P-Notes.

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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?

With growing dependence of information technology, a menace of e-waste generation has fallen upon Indian economy which poses multiple problems on the environment.

### Causes of E-waste

- (1) Most of the people involved in e-waste management are in unorganized sector, hence the regulatory mechanism is not enforced properly.
- (2) Dumping by developed countries in India
- (3) Non-recycling of used mobiles, computers & electronics
- (4) Poor regulatory regime & neglect of govt policymakers towards this sector

## Challenges associated with E-waste

- (1) Environmental degradation - introduction of  
2 poisonous elements into environment, conta-  
minating rivers & groundwater.
- (2) Safety of personnels - without proper  
equipments & safety gear, the health of  
workers is threatened.
- (3) Collection of e-waste - is a major obstacle  
in its management.
- (4) Capacity of the treatment plants is ~~under~~  
very low as compared to growing amount  
of e-waste.

The new E-waste management rules, 2016  
declared by the Ministry of Environment  
puts the responsibility of collection on  
the producer; rather than consumer.

- (1) Extended Producer Responsibility - an for  
collection of e-waste after used & discarded

(2) Greater role of civic bodies in collection of e-waste & coordination with producer.

(3) An advance payment to the producer while purchasing the electronics which can be recovered later while collecting e-waste.

(4)

The amended E-waste management rules bring in coordination between consumer, producer & govt for management of e-waste in India.

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।

The terrorist organizations like ISIS, Lashkar-e-Taiba, Jaish-e-Mohammed are increasingly adapting to forces of globalisation in their financing & propaganda activities. It is evident in the following cases -

- (1) Use of social media to radicalise & recruit people •
- (2) Hawala financing of terrorist activities
- (3) Cyber attacks on financial institutions for terror financing - attack of Bangladesh bank, stealing nearly \$80 million
- (4) With advances in global communications the penetration of terrorist activities has enhanced to remote areas. - setting up launch pads in ~~the~~ PoK & use of UAVs (drones) for site monitoring

- (5) ~~Case study~~ In 2008 Mumbai terror attack, the terrorists were guided by their leaders in Pakistan via media reports & live telecasts.
- (6) ISIS is being financed by the oil & gas trading with neighbouring countries.
- (7) Terrorist organizations have "outsourced" their activities to locals - like MNCs - Ex. Lone wolf attacks in Orlando, Dhaka, Paris.

The forces of globalisation have added to global development but at the same time, become a tool for propagation of terror activities across-countries.

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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।



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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।

With two consecutive years of droughts in India, we need to ~~the~~ strengthen the tools used for predicting weather events so that the livelihood of the farmer is secured.

### Challenges of predictions of monsoons

- (1) The unforeseen events of El-Nino
- (2) Negative Indian Ocean dipole ~~no~~ development across Indian Ocean
- (3) Uneven ~~weather~~ winds measurement across the subcontinent
- (4) High geographic diversity
- (5) Regional Centres of IMD not responsive to central regulations

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margin  
(इस मरल में  
कुछ नर लिखें)



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 govt has passed Compensatory Afforestation Fund Bill in the Parliament to use the fund for afforestation purposes & achieving the aim of 33% forest cover. At the same time, the govt needs to secure rights of tribal people as mentioned in Forest Right Act.

- (1) The CAMPA fund comprises of ₹ 40,000 crore corpus for afforestation for diversion of forest lands for ~~other~~ other purposes.

The govt needs to be vigilant about rehabilitating the tribals while granting approvals of industrial projects ~~for~~ under CAMPA.

- (2) While approving projects under CAMPA, the govt must seek a in-principle approval from Gram Sabha as mentioned under FRA so that rights of tribal people are secured.

(3) The rehabilitation, resettlement & compensation of displaced tribals must be the responsibility of the govt & the private sector.

(4) It needs a coherence <sup>between pvt sector & tribals</sup> while deciding the ownership of minor forest produce which are procured from the forested land.



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।

How Indian IP administration has failed to keep

pace

- (1) The issue of Compulsory licensing - required in India to secure public health but opposed by developed nations
- (2) Evergreening of patents - Section 3(d) of Patent Act - a contentious issue between the govt & pharmaceutical companies
- (3) Patent regulations of GM crops being circumvented by Mahyco Monsanto in patenting GM mustard



The provisions of New Intellectual Property Rights (IPR) policy, 2016 has addressed some of the issues:

- (1) It retains the provision of Compulsory Licensing to prevent ~~the~~ unusually high prices of essential goods for public welfare.
- (2) It doesn't permit evergreening of patents without substantial improvement & innovation in product.
- (3) It sets a clear & robust regulatory regime for dispute resolution over IP issues.
- (4) The new policy is TRIPS-oriented.

The policy will boost innovation & entrepreneurship in the country -

- (1) It provides protection of new innovations & support for patent registration & filing to start-ups & freelance scientists.
- (2) It aims to create an enabling environment for boosting research & development in nearby

all sectors of economy.

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.

यद्यपल सूखे और बाढ़, दोनों की आवृत्तल देश के कई राज्यों में बढ़ी है कलंतु उनके प्रभावों को कम करने हेतु तैयारियों के स्तर में अभी भी एक बड़ा अंतराल वलद्यमान है। भारत के संदर्भ में चर्चा कीजिए।



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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।

With rising levels of inequality in India, it is imperative to focus on bringing the population under financial net to secure their social & economic well being.

### Reasons

- (1) To encourage economic activities, access to credit is essential. Financial inclusion will help in institutional credit to entrepreneurs & farmers, thus keeping them out from trap of money lenders.
- (2) Financial security is paramount for a secured health & access to education. Financial inclusion will help in providing insurances & loans to households.
- (3) Social security of vulnerable sections like women, elderly, disabled can be

ensured, by promoting financial services like pension funds, and health insurances.

(1) To boost micro, small & medium sector (MSMEs) financial support is crucial for providing them competitive products in markets. Organization of cooperatives can help in securing financial ~~in~~ inclusion.

Steps taken by the govt to promote financial inclusion :-

- (1) PM Jan Dhan Yojana
- (2) PM Suraksha Bima Yojana
- (3) PM Teevan Tyote Yojana
- (4) Giving MUDRA the status of a full fledged bank
- (5) Payment bank license to Indian Post Payment Bank

~~(6)~~ For securing the social-economical equality & well being, promotion of financial inclusion is a non-negotiable step.

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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।

With changing global dynamic order & ever growing threat of terrorism, & war, India is focusing on indigenizing the defence industry to be self reliant for defence equipments.

### Need for indigenization

- (1) Surrounded by hostile neighbours - boundary disputes with Pak & China & their nuclear armed defence forces
- (2) Soft Power - to emerge as a global & regional superpower, self reliance of defence industry is a must.
- (3) Reduce dependence on foreign sources for ammunition & arms as supply can be choked in war situations
- (4) Saving <sup>foreign</sup> exchange - significant amount of foreign exchange spent on arms import
- (5) Involve local private sector & MSMEs to procure defence equipments.

Challenges in indigenization

- (1) Technology transfer - currently we don't possess state of the art technology for defence equipment manufacturing
- (2) Investment - budgetary allocation to defence sector is very low - compared to USA & China
- (3) Personnel - inadequate no. of trained professionals in defence manufacturing
- (4) Corruption in defence deals - recent examples of Agusta Westland case & Embraer deal

The govt has unveiled the new Defence Procurement Policy 2016 & brought reforms in FDI in defence sector to overcome these challenges. ~~But~~ The salient provisions

- (1) Preference to IDDD - Indigenously Designed, Developed ~~and~~ Defence equipment while procuring for the govt.
- (2) Relaxing FDI norms - 100% FDI via govt approval route - will bring in technology in India

- (3) Doing away with "State of the Art" provision while bringing new technologies in India - easier establishment of manufacturing facilities & enhanced investment.
- (4) Tax benefits & govt handholding for appropriate grants & approvals required.

While India aims for becoming a regional & global superpower & vying for a permanent seat in UN security council, it must establish itself as a self-reliant defence giant to project in global scenario.

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।

~~The Answer~~

Digital technologies have found their way in the traditional classrooms of schools & colleges. Use of digital technologies has become very important to revamp the state of ~~for~~ education sector in India.

Since the access to <sup>primary</sup> education is a fundamental right under Art 21A, the govt has enacted several schemes for providing primary/secondary education in India.

One such scheme is SWAYAM, a portal for accessing Massive Online Open Courses (MOOCs) for imparting higher level education to rural/urban students who are not able to attend regular colleges.

Importance of MOOCs is evident in the fact that ~~was~~ the enrollment

rate in secondary & college education is very low & quality of instruction is continuously deteriorating in private colleges.

The courses under MOOCs are developed keeping the requirement of industry in mind so that the graduates can be directly employed after completion of the courses.

The evaluation & feedback mechanism is also very well designed & the standards are in consonance with National Skill Quality Framework.

The challenges that lie in implementing MOOCs are primarily access to internet in rural areas, digital literacy of students/parents & monitoring mechanisms of quality of instruction.

MOOCs can go along way in imparting quality education in Indian youth which is affordable & skill oriented, ensuring the employability of the students.

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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।

The Govt has recently launched the new Civil Aviation Policy, 2016 with an aim to bring India from 10<sup>th</sup> position to 3<sup>rd</sup> position in global civil aviation market.

The policy involves many provisions which cater to the needs of building a more modern, safe, secure & sustainable aviation industry. Following are the key schemes -

- (1) Fare reduction on short routes - capping the fare to 1,500/- & 2,000/- for short duration routes - affordability
- (2) Revival of dormant airports - infrastructure funding for reviving defunct airports - regional connectivity
- (3) Increased role of AAI - in monitoring the execution of scheme and providing secure air traffic controlling services - Safe travel

- (4) Open Sky Policy - Bilateral air services agreements with nations within 5000km range & unlimited access to no. of seats & no. of flights - promotion of tourism
- (5) Viability Gap Funding - for airlines running on non-profitable routes for their sustained operational capability - sustainability
- (6) Manufacturing, Repair & Overhaul (MRO)  
handholding support to MRO operators with land availability & rebate in service tax & excise duties on Air Turbine fuel (ATF) - bringing modernity to the aviation industry

With these steps, the govt is aiming to develop domestic as well international civil aviation industry & aiming to increase the domestic ticketing from 8 crore to 30 crore by 2025, tapping the potential of a rising middle class & its geographical advantage - ideal position between west & eastern hemisphere.

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

Start-ups have a major significance in boosting the Indian economy as -

- (a) They provide entrepreneurship opportunities to aspiring ~~innovators~~ innovators &
- (b) Huge source of employment for the rural & urban youth
- (c) Technological innovation & capacity building
- (d) Tapping hitherto dormant sectors
- (e) Moving towards a mindset of job creator as opposed to job seeker

In the wake, of the govt has recently launched the "Start-up India" program to provide an enabling environment to start-ups in India.

### Key Provisions

- (1) Funding - a fund of funds with a corpus of Rs. 10,000 crore to fund startups

- (2) Tax incentives - Rebate from income tax for three years
- (3) Relaxation in labour laws - no labour inspections for 3 years
- (4) Handholding support - in registration, marketing & patent filing
- (5) Easy exit policy - in case the enterprise doesn't take off - with the help of new Bankruptcy code

### Benefits

- (1) Support to growing no. of startups in India, nearing 10,000 in no. - surpassing China
- (2) Preventing hassle from bureaucratic inertia, administrative discretion
- (3) Much need investment in non-technological startups - as most of venture capital is limited to urban elite youths
- (4) Provide employment to huge no. of rural & urban youth
- (5) Reviving ~~stagnating~~ Indian economy during a period of global slowdown

Challenges to the program

- (1) Penetration - the govt support & funding must reach to Tier-2 & Tier-3 cities & rural areas where small entrepreneurs are present
- (2) Approval success - with nearly 800 application in first few months, only 3 have been approved.
- (3) Administrative inertia - as an inter-ministerial board is approving the start-ups eligibility, chances of rent-seeking
- (4) Funding shortages - the corpus of Rs. 10,000 crore may not be enough to support start-ups, also media criticism of putting tax payers money into such volatile sector. (as success rate of startups is very low).

With a positive attitude & long term ~~vision~~ vision, the govt must strive to ~~to~~ provide impetus to this game-changing sector to solve the problem of growing unemployment & jobless-growth.

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।



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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.

आग्मेन्टड 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 refers to merging of real-time events with virtual environment so that the experience of the user is enhanced & more interactive.

Virtual reality is a concept involving a real time perception of virtual events with the help of specially designed equipment. They can generate a sensory perception of ~~sight~~, taste, vision, sound, smell & speech.

Imp of AR, & VR in every day life

- (1) Education - remote lectures broadcasted  
with help of virtual reality
- (2) Training - military combat training  
without consequences of failure of missions

- (3) Archaeology & Heritage - re-creating virtual replica of heritage sites, monuments thus promoting e-tourism.
- (4) Therapy - generating ~~environment~~ conducive environment for psychiatric treatment. Ex. fear therapy
- (5) Gaming - enhanced experience of visual & audio modes in gaming
- (6) Healthcare - videos of ~~virtual~~ virtual health medics to help in first aid.

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(A) Allopathy & Homeopathy - In allopathy, the actual replica of the disease is treated, whereas in homeopathy, the treatment is given by the use of the same substance.

(B) Therapy - Treatment for the disease is given by the use of the same substance.

(C) Therapy - Treatment for the disease is given by the use of the same substance.

(D) Therapy - Treatment for the disease is given by the use of the same substance.

(E) Therapy - Treatment for the disease is given by the use of the same substance.