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GENERAL STUDIES (TEST CODE : 763)

Name of Candidate	Tejani Rana	Registration Number	27904
Medium Eng./Hindi	English	Date	06/11/2016
Center			

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 ENGLISH.
इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी 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।

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

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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

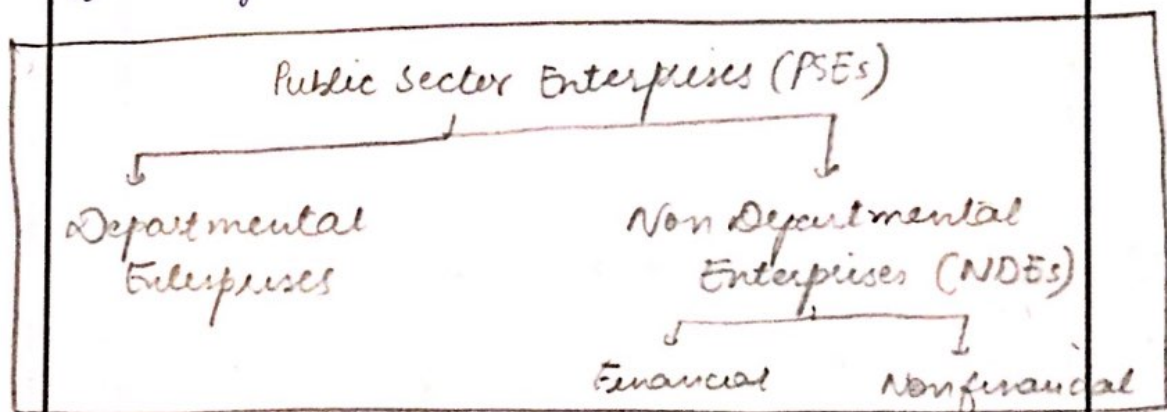
Answer all the questions in NOT MORE THAN 200 WORDS each. Content of the answers is more important than its length. All questions carry equal marks.

12.5X20=250

1. The most important challenge in managing the public sector in India is balancing its accountability with autonomy. Discuss with relevant examples.

भारत में सार्वजनिक क्षेत्र के प्रबंधन में सर्वाधिक महत्वपूर्ण चुनौती स्वायत्तता के साथ इसकी जवाबदेही का सन्तुलन स्थापित करना है। प्रासंगिक उदाहरणों के साथ चर्चा कीजिए।

Adoption of 'democratic socialism' in post-independence era saw great role envisaged for public sector in economy. Given its size and importance, ensuring effective governance is the key.



Challenges in balancing autonomy and accountability for effective governance are -

Autonomy

Accountability

Departmental Enterprises: Railways and Postal

Services constitute major share.

1. Populist rail routes

hurled railways' financial health.

2. Cross subsidy for
passenger fares hurled
industries due to
higher logistics cost.1. Poor records over
rail safety shows
lack of accountability2. Bebek Debroy Committee
showed poor Human
Resource practices3. Parliament ~~was~~ is
under equipped to
scrutinise technical
study details
detailsNon Departmental EnterprisesFinancial Enterprises① Public sector Banks
faced 'repression on
asset side' due to
social obligations
like expansion of
bank branches etc① Willful defaulters,
Cases like that
of Vijay Malya
default points to
lack of accountability
of management.

② ZC was coerced into buying minority stakes of PSUs being divested.

③ PT Nayar Committee
saw need of Bank Board Bureau for independent management

Non Financial Enterprises

① Use charges ~~for~~ were fixed at low level causing under-recovery for disoms, thermal powerplants and refineries

② Corporate efficiency has remained poor than private enterprises

② Contracts are awarded to concessionaire at discounts, e.g., Reliance KG basin case

Therefore, the need of hour is to ensure autonomy with accountability so that Public sector is neither 'under nor over governed'

2. Most rural poor are excluded from the ambit of the formal financial system, which raises their dependence on informal sources as well as exposure to financial distress. In this context, explain why formal sector lending, especially to farmers, is so limited. Also suggest some steps that need to be taken to increase access to formal credit in rural areas.

अधिकतर ग्रामीण निर्धनों को औपचारिक वित्तीय व्यवस्था की परिधि से बाहर छोड़ दिया गया है, इससे अनौपचारिक स्रोतों पर उनकी निर्भरता एवं वित्तीय संकटों के प्रति उनके जोखिम बढ़ जाते हैं। इस प्रसंग में व्याख्या कीजिए कि विशेष रूप से किसानों को औपचारिक क्षेत्र के ऋण इतने सीमित क्यों हैं? ग्रामीण क्षेत्रों में औपचारिक ऋण की उपलब्धता बढ़ाने के लिए उठाए जाने वाले कुछ आवश्यक कदम भी सुझाइए।

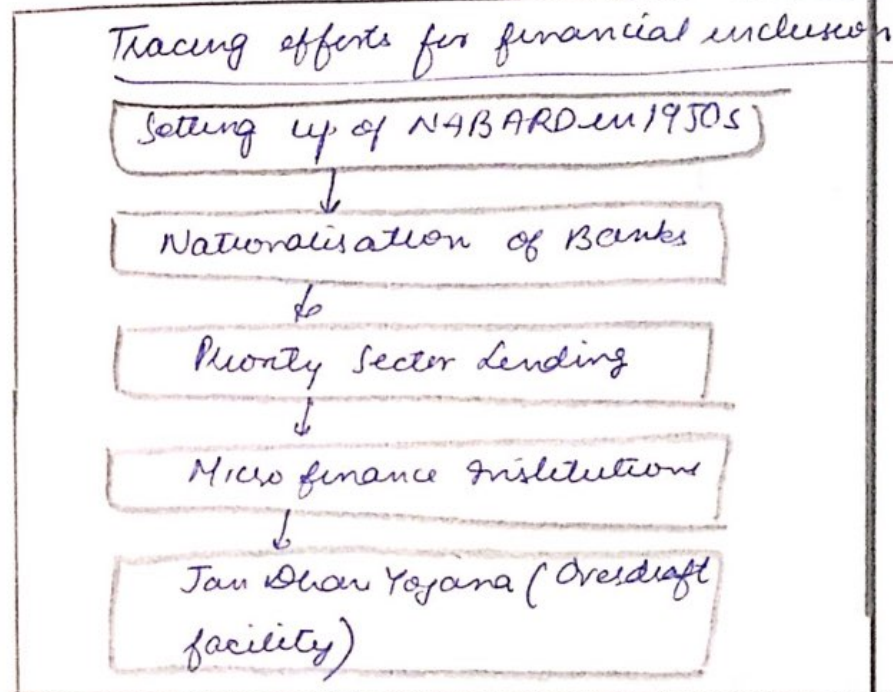
Despite government efforts for credit expansion, NSSO survey shows 40% of credit needs among farmers are met through informal sources.

Reasons for limited lending

- ① Lack of collateral : Since 85% land holdings are small or marginal, collateral is a major obstacle
- ② Cumbersome loan procedures and distant bank branches are procedural hurdles.
- ③ Priority Sector Lending (PSL) targets are

summet.

- ④ SHG - Bank linkage program, though successful in Southern states, remained ineffective in poverty ridden states like UP, Bihar etc.



Steps that can ensure access to formal credit in rural areas

- ① Encourage cooperative organisation of farmers for credit access, Success of AMUL needs to be emulated

- ② STIG-Bank linkage programme's success in south should be replicated by roping in NGOs.
- ③ Direct Benefit Transfer, implemented through JAM Trinity, should replace Interest Subvention scheme (ISS) for effective targeting
- ④ Priority Sector Lending should be facilitated by government, e.g., PSL tradable certificates is a right step
- ⑤ Greater fiscal support to NABARD and to Rashtriya Mahila Kosh for definance so that vulnerable sections can be included.

Credit expansion is the key to financial inclusion & in turn realising the dream of 'doubling farmers' income' by 2022

3. Efforts should be made to support Indian businesses to invest abroad as several direct and indirect benefits accrue to the home country from outward foreign direct investment. Comment.

भारतीय उद्यमियों को विदेशों में निवेश करने हेतु सहायता प्रदान करने के प्रयास किए जाने चाहिए, क्योंकि बहिर्गामी प्रत्यक्ष विदेशी निवेश से गृह राष्ट्र को अनेक प्रत्यक्ष एवं परोक्ष लाभ प्राप्त होते हैं। टिप्पणी कीजिए।

In 2015, incoming FDI ~~was~~ touched \$25 billion mark, whereas outgoing FDI was around \$10 billion. This points to Indian entrepreneurs' calibre to manage companies in multiple nations.

Benefits of outgoing FDI

- ① Economies of scale accrue to businesses, raising their competitiveness
- ② Vertical integration (i.e. control over raw material and supply chains) reduces cost.
- ③ Example: ONGC Videsh Ltd. investments in Vietnam, Myanmar etc. provide energy security.

- ③ Soft power of India rises, e.g., US business communities of Indian origin lobby for Indian interests like Civil Nuclear deal.
- ④ Remittances help in covering BOP deficit
- ⑤ Access to new technology is granted However for a capital scarce country like India, outgoing FDI is also a challenge, due to following reasons
 - ① Employment opportunities are shifted abroad
 - ② BOP deficit increases during the year in which ^{fresh} investments are made.
 - ~~③~~
 - ③ Tax base of India is eroded due to source based taxation regime

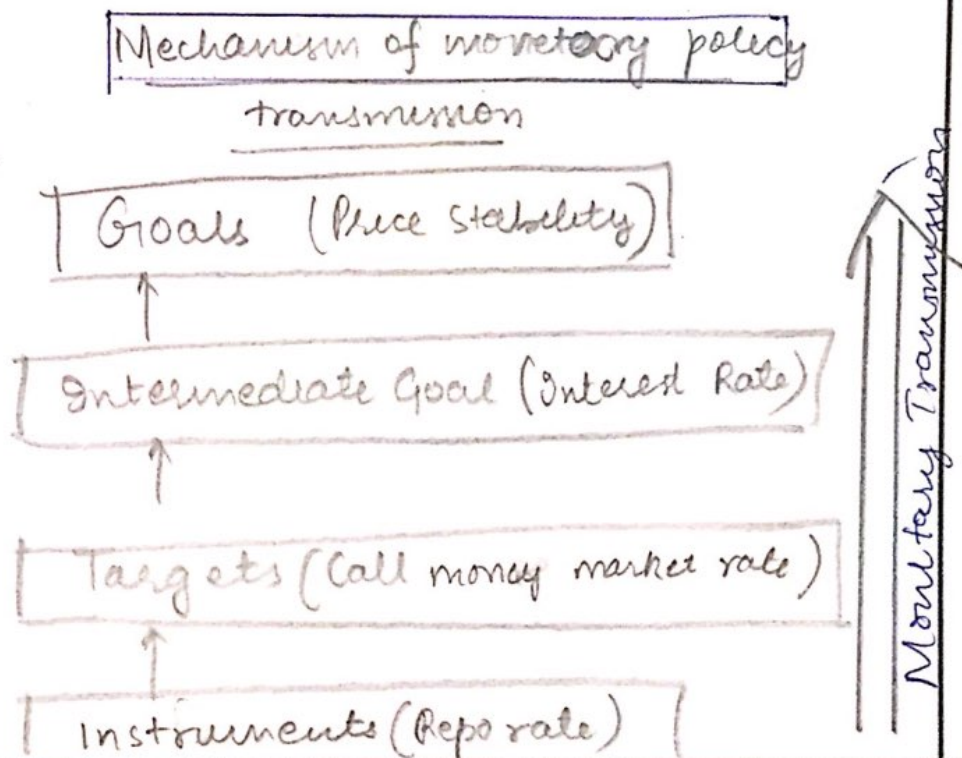
- ④ Indian resources remain under utilised
e.g., hydrocarbon exploration requires
fresh investments.

Therefore, a balanced approach
would be to encourage outgoing
FDI in ^{non-priority} sectors for Indian economy.
Otherwise, we need domestic resources
for 'Make in India' success.

4. Monetary policy transmission in India has largely remained ineffective. What are the reasons behind this? Explain what marginal cost-based lending rate (MCLR) is and how it can affect monetary policy transmission in India.

भारत में मौद्रिक नीति संचरण व्यापक रूप से अप्रभावी रहा है। इसके पीछे निहित कारण क्या हैं? व्याख्या कीजिए कि सीमांत लागत-आधारित उधार दर (मार्जिनल कॉस्ट-बेस्ड लेंडिंग रेट: MCLR) क्या है और यह भारत में मौद्रिक नीति संचरण को किस प्रकार प्रभावित कर सकती है?

Monetary policy transmission refers to the impact of change in policy rates (repo rate, say) on market interest rates (short term and long term rates)



Reasons for ineffective transmission

- ① Underdeveloped financial markets, especially bond markets hinder transmission
- ② Until recently, Base Rate system was employed by banks for setting lending rate.
- ③ Small saving rates like Post office savings etc are administered, which ~~deter~~ ^{deter} banks ~~for~~ from reducing deposit account rates
- ④ NPAs of banks have impacted their ability to make fresh loans at low rates.

Marginal Cost Lending Rate System (MCLR)

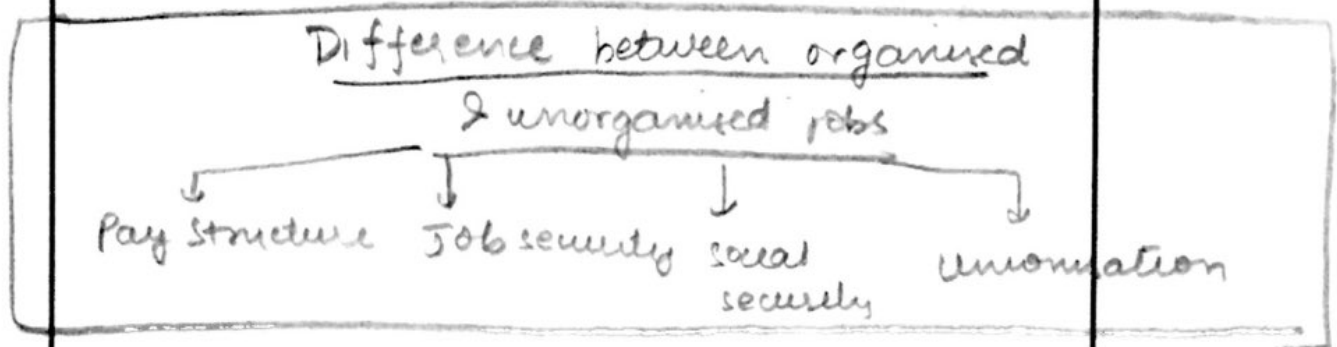
The lending rates will be set on the basis of marginal cost of funds, rather than average cost ^(AC) of funds. Since AC ~~is~~ depends on previous policy rates, it was not sensitive to monetary policy. By

using ~~marginal~~ MCLR system, sensitivity of lending rates to policy rate will rise, thereby raising monetary transmission.

5. India's most pressing labour market challenge going forward is to generate a large number of formal sector jobs. In this context, discuss the constraints on formalisation of workforce. Also highlight how these constraints can be overcome.

भारत में श्रम बाजार की सर्वाधिक बढ़ती दबावकारी चुनौती औपचारिक क्षेत्र में बड़ी संख्या में रोजगार सृजन करना है। इस प्रसंग में कार्यबल के औपचारिकीकरण में आने वाली बाधाओं की चर्चा कीजिए। साथ ही, यह भी रेखांकित कीजिए कि इन बाधाओं को कैसे दूर किया जा सकता है।

Share of unorganised sector
in employment remains as high as
92%.



Constraints on formalisation are

- ① Employment generation has been mainly driven by MSMEs (Micro, Small & Medium enterprises) which are in informal sector.
- ② Labour laws are rigid, hence firms do not expand formal employment

to remain outside their ambit

Example: Industrial Disputes Act

mandates government permission
for laying off workers

③ 'Contractualisation of labour' is ^{also} the
outcome of absence of unions
among contract workers

④ Labour intensive sectors like textiles
are seasonal in nature, preventing
formal workforce.

Overcoming these constraints

① Simplification of labour laws
will not only improve 'ease of
doing business index' ranking but
will generate more employment

② Incentives in terms of tax concessions etc should be granted, e.g., Textiles sector Rs 6000 package includes it.

③ Unionisation among contract workers is the need for demand driven change

④ Social security responsibilities should be taken by government through expansion of Atal Pension Yojana

Since labour is a state subject,
Ranking of states over Business Oriented Reform Process is a right step forward as it leverages cooperative and competitive federalism in right manner

6. What are the objectives of public debt management in India? Examine the rationale for setting up an independent agency to manage government debt. Also highlight the issues that need to be addressed to ensure successful debt management by an agency other than the RBI.

भारत में सार्वजनिक ऋण प्रबंधन के उद्देश्य क्या हैं? सरकारी ऋण का प्रबंधन करने के लिए एक स्वतंत्र एजेंसी स्थापित करने के तर्क का परीक्षण कीजिए। RBI के अतिरिक्त किसी अन्य एजेंसी द्वारा सफल ऋण प्रबंधन सुनिश्चित करने हेतु, आवश्यक रूप से संबोधित किए जाने वाले मुद्दों पर भी प्रकाश डालिए।

Public debt management has following objectives -

- ① Keeping debt at manageable levels
- ② Ensuring debt at lowest interest rates
- ③ Ensuring right mix of internal & external debt.

Recently, proposal for setting up of Public Debt Management Agency (PDMA) has come to fore.

Rationale behind PDMA

- ① Conflict of interest with other functions of RBI is there, e.g., RBI sets policy rate as well as SLR (Statutory Liquidity ratio) that causes demand for bonds by banks. This is in conflict with debt management function.
- ② There is a need to build expertise in public debt management.
- ③ Separation between treasury and Central Bank is necessary for RBI's independence.
- ④ External debt through issue of rupee denominated bonds etc should be managed by full time body.

Issues in creating a separate body

- ① Legal issue: There is a need to amend RBI Act 1934 for paving way for PDMA.
- ② There is a need to enhance pool of talent that can take ^{leadership} positions in PDMA.
- ③ Building credibility of body is another challenge

Since the reform is pending for some time, it should be implemented for independent monetary policy as well as development of bond markets.

7. Explaining the rationale behind ceiling on agricultural land holdings, discuss whether land ceiling has stifled agricultural growth in India.

कृषि भू-धारिता की ऊपरी सीमा निश्चित किये जाने के पीछे निहित तर्क की व्याख्या करते हुए चर्चा कीजिए कि क्या भूमि-धारण करने की सीमा ने भारत में कृषि क्षेत्रक की वृद्धि को दमित किया है?

Land ceiling legislations, along with redistribution of surplus land were one of the land reforms implemented in post independence era.

Rationale

- ① Preventing concentration of wealth in few hands was a socialistic goal (Article 39 of Constitution) that was targeted through land ceiling.
- ② Amartya Sen argued that small farms can be more productive than large farms.

③ Providing access to land to tenants and 'low castes' was another goal

④ Land ownership by cultivator also enhances agricultural productivity

~~However~~
~~Though~~ the land reforms could not be completed, except for some success in West Bengal and Kerala, due to poor implementation

Impact of land ceiling on productivity

① Fragmentation of land holding over generations led to poor penetration of mechanisation

- ② Small landholders could not get access to formal credit & other modern inputs
- ③ Canal system expansion to cover all holdings became difficult. As a result, only 40% land is under irrigation

Impact of poor implementation of land ceiling

- ① It lead to informal tenancy, leading to exploitation of tenants
- ② Land was left fallow due to fear of being taken

Hence the need is to encourage consolidation of land holdings along with legalising land leasing for creating right incentives in agriculture

8. Augmenting the employment potential is linked with the need for increasing India's share in world exports. What are the objectives of the Foreign Trade Policy (2015-20)? How does it seek to achieve these objectives in the coming years?

रोजगार क्षमता में वृद्धि, वैश्विक निर्यात में भारतीय भागीदारी बढ़ाने की आवश्यकता से संबद्ध है। विदेश व्यापार नीति (2015-20) के उद्देश्य क्या हैं? आने वाले वर्षों में यह इन उद्देश्यों को किस प्रकार प्राप्त करना चाहती है?

Foreign Trade policy (2015-20)

*was introduced for harnessing
India's export potential. It ~~had~~ has
following objectives —*

- ① *Raising the volume of exports*
- ② *Diversification of exports in
terms of composition and direction*
- ③ *Aligning Foreign Trade Policy with
objectives of 'Make in India'*

It seeks to achieve these objectives as follows-

① Streamlining incentives for exports:

This is done by combining multiple schemes under two - Merchandise Exports Incentives Scheme (MEIS) and Services Exports Incentives Scheme (SEIS)

② Raising competitiveness of exports:

This is being done by relaxing local content requirements.

③ Encouraging MSMEs to reap their

export potential: This is being done by supporting them through credit & technology.

④ Reaping the benefits of Free Trade Agreements for diversification

Hence its effective implementation
is necessary to ensure revival of
falling exports.

9. The advent of differentiated banking marks the beginning of a radical overhaul of the banking structure that would address the abysmal levels of financial inclusion in India. Elaborate. What are the possible issues that could impede the functioning of these banks?

विभेदित बैंकिंग का आरम्भ, बैंकिंग संरचना के आमूल जीर्णोद्धार की प्रक्रिया के आरम्भ को चिह्नित करता है, जो भारत में वित्तीय समावेशन की निराशाजनक स्थिति को हल कर सकेगा। वर्णन कीजिए। इन बैंकों की कार्य पद्धति को बाधित कर सकने वाले संभावित मुद्दे क्या हैं?

Payment Banks and Small Banks are proposed ~~for~~ as a class of niche banking in order to ensure financial inclusion for all.

Role of differentiated banking in financial inclusion -

- ① They can come up with new products catering to the needs of rural & urban poor.
- ② They will provide remittance services to migrants.

- ③ They can provide nucleo credit by developing local networks with the help of NGOs.

However with the recent case of Mahindra Group withdrawal from payment banks, there are doubts cast over their financial viability.

Issues impeding success are

- ① Low revenue channels as payment banks have to invest 75% of funds in government securities and they cannot advance loans
- ② Competition from commercial banks

who have strong presence in rural areas.

③ Jan Dhan Yojana, by providing banking access to rural population, has eroded their potential customer base.

④ Digital solutions like Unified Payment Interface (UPI) etc will further provide competition in remittance services

⑤ Limit over deposit amounts is another challenge.

⑥ Moreover, payment banks won't ~~for~~ fulfil credit needs, thereby leading to partial inclusion

Financial inclusion requires multipronged approach. Niche banking potential should be reaped by players having strategic advantage like India Post.

10. While explaining the reasons behind slump in revenue of Indian railways, discuss whether the recently announced "dynamic fare pricing" can help in addressing the problem.

भारतीय रेलवे की आय में गिरावट आने के पीछे निहित कारणों की व्याख्या करते हुए चर्चा कीजिए कि क्या हाल ही में घोषित 'डाइनेमिक फेयर प्राइसिंग' इस समस्या को हल करने में सहायता कर सकता है?

*The financial health of
Railways has remained a challenge
for years.*

Reasons are

- ① It does not get compensation for fulfilling social obligations like running unviable routes.
- ② Populist measures like low passenger ~~traffic~~ tariff and new unviable routes hurt financial health
- ③ Competition from other modes

of transport like roads, airways etc is a challenge.

④ Operational efficiency remains low, as pointed out by Birek Debroy Committee

⑤ Human Resource (HR) costs remain high.

Dynamic fare pricing was introduced for elite trains. In this system, the price will rise by 10% for every 10% seats sold

It will improve financial health of Railways in following manner

⑦ These trains constitute 8% of Railways' revenue. Hence impact can be substantial.

② 'Ability to pay' principle mandates charging - those who can pay.

⑦ However it is argued that the effect will be negligible as

① It will not cover the entire gap between revenue & cost.

② Passenger traffic may shift to airways. Hence revenues may not rise.

Therefore, there is a need to empirically evaluate the impact of this experiment before further ~~expansion~~ emulation

11. What is Google Street View? Discuss the grounds on which India has refused to allow Google to launch its Street View service in the country.

गूगल स्ट्रीट व्यू क्या है? चर्चा कीजिए कि भारत ने किन आधारों पर गूगल को अपने देश में इसकी स्ट्रीट व्यू सेवा आरम्भ करने से मना कर दिया है।

Google Street View is an application which provides real time spatial information to users. It has applications in navigation, traffic management etc.

Many countries like US, Germany, Israel have allowed it, but with restrictions pertaining to critical security infrastructure, consent of owners of the buildings etc.

Grounds ~~on which~~ for India's refusal are

- ① Security infrastructure will become vulnerable
- ② Terrorist attacks can ~~be~~ utilise this technology - e.g., During Mumbai 26/11 attacks, a live telecast was used by terrorists.
- ③ Privacy of individuals may be evaded
- ④ Export of huge spatial data will cause strategic harm

However, instead of blanket ban, well thought out restrictions as imposed by western nations

can enable us to utilise the
technology without causing any
damage.

12. Increasing use of Unmanned Aerial Vehicles (UAVs) pose unique policy challenges that transcend conventional domains of national security, privacy and business practices. Analyse in the context of the draft guidelines that have been issued by the DGCA (Directorate General of Civil Aviation). Also examine the significance of UAVs in achieving the goal of inclusive development.

मानव रहित यानों (UAVs) का बढ़ता प्रयोग वस्तुतः ऐसी विशिष्ट नीतिगत चुनौतियों को खड़ा करता है जो राष्ट्रीय सुरक्षा, गोपनीयता एवं व्यवसायिक कार्यप्रणालियों के पारंपरिक क्षेत्र से कहीं आगे बढ़ कर है। नागर विमानन महानिदेशालय (DGCA) द्वारा जारी मसौदा दिशा-निर्देशों के संदर्भ में इसका विश्लेषण कीजिए। साथ ही, समावेशी विकास के लक्ष्य को प्राप्त करने में UAVs के महत्व का परीक्षण कीजिए।

Unmanned Aerial Vehicles

(UAVs) or drones are the robotic devices, capable of navigating air space, which are controlled by users miles away.

Challenges posed by UAVs are

- ① Vulnerability of critical infrastructure rises. Hence DGCA guidelines bar use of UAVs over infrastructure like

nuclear facilities etc

- ② Cross border threats will increase.
Hence DGCA has ~~to ban~~^{restricted} foreign
OAVs in Indian air space.

- ③ Collision with aircrafts pose another
challenge. Hence guidelines recommend
licensing for flying above a threshold.

Role of OAVs in inclusive development

- ① Digital inclusion : OAVs can provide
demand driven digital access
on the same lines as Project Google's Loon
etc
- ② Financial inclusion : Pradhan
Mantri Fasal Bima Yojana
depends upon estimation of losses

through drones.

- ③ Extension services for agriculture can be provided in rural areas
- ④ Service delivery can be provided in regions with difficult terrain

Hence, a correct mix of promotion & regulation is required to put this technology to use.

13. What is Artificial Intelligence? Can it be a potential game changer in improving governance? Examine the challenges that lie in its use.

कृत्रित बुद्धिमत्ता (आर्टिफिशियल इंटेलिजेंस) क्या है? क्या गवर्नेंस (शासन) में सुधार लाने में यह एक संभावित गेम चेंजर (स्थिति परिवर्तक) बन सकता है? इसके उपयोग में निहित चुनौतियों का परीक्षण कीजिए।

Artificial Intelligence ^(AI) refers to development of human like cognitive powers in machines.

Today, it has wide applications from Google's search algorithm to Chess and Go games.

Role of AI in governance

- ① Health services: Use of big data can help predicting the ^{health} requirements of a region based on their google searches

- ② Tax evasion ~~by~~ can be plugged by matching data of tax returns

with expenditure details

③ Agricultural Extension Services : Soil

based crop choices can be provided to farmers.

④ Simulations can help in evidence based policy making

Challenges posed by AI are

① Stephen Hawking has warned against the potential of threatening human survival

② Employment loss : Recently ICICI

Bank has announced use of robots for providing client services.

This threatens job opportunities in key sectors.

- ③ Privacy invasion due to use of big data may be rampant. There is a need for comprehensive legal framework to address this.
- ④ Cyber threats pose another challenge, especially with rise of Internet of Things (IoT's)

Like every disruptive technology, it is a double edged sword. We should use it with caution.

14. The government recently announced its plan to make India a 100% electric vehicle nation by 2030. What are the advantages of Electric Vehicles over internal combustion engine (ICE) vehicles? Highlight the challenges that the government needs to overcome to implement this plan.

सरकार ने हाल ही में भारत को वर्ष 2030 तक 100% विद्युत वाहन युक्त राष्ट्र बनाने हेतु अपनी योजना की घोषणा की। आंतरिक दहन इंजन (इंटरनल कमबुस्टन इंजन: ICE) वाले वाहनों की तुलना में विद्युत वाहनों के क्या लाभ हैं? इस योजना का कार्यान्वयन करने के लिए सरकार को किन चुनौतियों का समाधान करने की आवश्यकता है?

Electric Vehicles as the name suggests will be run by electric power stored in rechargeable batteries rather than on conventional fuels.

Advantages over ICE

- ① Environmental friendliness will help in ~~keeping~~ ^{achieving} goals of Paris agreement on Climate Change.
- ② Energy security will be ensured as dependence on hydrocarbons will reduce

③ They ~~make~~ will reduce vehicular noise pollution.

④ They have low maintenance and fuel costs.

Challenges facing the plan

① Environmental friendliness due to reduced dependence on hydrocarbons can be ~~is~~ overshadowed by pollution caused by Lithium ion batteries' manufacturing

② They are expensive. Hence adoption will be disincentivised

③ Lack of noise may lead to road collisions.

- ④ Developing indigenous ~~technologies~~
production capacities is a challenge
- ⑤ Expansion of recharging stations is a concern
Hence the plan needs to
Overcome challenges through a
holistic approach of enhancing
production capacities, skill develop-
ment and sensitisation campaigns.

15. While the provisions of the Montreal Protocol have helped phase out CFCs, the alternative to them have contributed to another problem. Comment. How will the Kigali agreement help in addressing this problem?

यद्यपि मॉन्ट्रियल प्रोटोकॉल के प्रावधानों ने चरणबद्ध रूप से CFCs का उपयोग समाप्त करने में सहायता की है, किन्तु इसके विकल्प ने अन्य समस्या खड़ी कर दी है। टिप्पणी कीजिए। इस समस्या को हल करने में किगाली समझौता किस प्रकार सहयोग करेगा?

Chlorofluorocarbons (CFCs), mainly used in refrigeration & air conditioning industry, were responsible for ozone depletion. Hence Montreal Protocol put legal obligations for phasing out the use of CFCs.

Though success of Montreal Protocol has been unparalleled in elimination of CFCs, and reduction in ozone hole, the switch to HFCs has contributed to another problem.

Problems caused by HFCs are-

- ① Global Warming Potential (GWP) of HFCs is 100 times greater than that of CO_2 .
- ② Scientists have estimated that 'business as usual' outcome will be 0.5°C rise in average temperature due to use of HFCs.

In the light of their GWP, Kigali agreement marks another breakthrough.

What is Kigali agreement?

It sets legally binding targets

for phasing out of HFCs on developed and developing nations.

How well it help?

- ① The timeline for developed nations is stricter than developing nations
- ② India & China's timeline are different, keeping in view China's huge HFC emissions due to its large air conditioning industry
- ③ It will facilitate technology transfer

India's unilateral action of mandating incineration of HFCs shows importance of global awareness generated by Kigali Agreement.

16. Despite a wide range of problems and issues, India supports 57 per cent of the world population of tigers. Enumerate the challenges in maintaining the growth of tiger population in India. What are the salient features of the strategy adopted by India over the years to support the tiger population? Also highlight the measures required to further improve the situation in this context.

विभिन्न प्रकार की समस्याओं एवं मुद्दों के बाद भी विश्व के 57 प्रतिशत बाघ भारत में हैं। भारत में बाघों की संख्या वृद्धि को बनाए रखने में आने वाली चुनौतियों को एक-एक करके बताइए। बाघों की संख्या को प्रोत्साहित करने के लिए भारत द्वारा विगत वर्षों में अपनायी गयी रणनीति की मुख्य विशेषताएँ कौन-सी हैं? इस संदर्भ में स्थिति में और अधिक सुधार करने के लिए आवश्यक उपायों पर भी प्रकाश डालिए।

Latest Tiger Census shows a 40% rise in tiger population in India. However tiger conservation faces many challenges. These are-

- ① Poaching : Illegal hunting of tigers is difficult to crack down
- ② Man-animal conflicts pose danger, especially due to expansion of human settlements
- ③ Habitat loss due to developmental projects like Ken-Betwa link

is a matter of concern.

- ④ Encroachments in Protected Areas like in Manas National Park endanger their survival.

Strategy adopted by India

- ① Wildlife Protection Act (WPA) lists tiger in Schedule 1 for preventing it against poaching.
- ② Protected Areas (PAs) are delineated for ensuring habitat protection
- ③ Joint Forestry Management (JFM) helps in emulating traditional best practices of harmonious living with wildlife.
- ④ International collaboration through Global Tiger Forum was significant part

of strategy

- ⑤ Monitoring of population was done through Tiger Census

Further measures required are

- ① Sensitisation campaigns should make public aware of Fundamental Duty of environment protection
- ② National Board for wild life (NBWL) should consider biodiversity conservation concerns during diversion of forests.
- ③ Civil society collaboration should be increased, especially with Forest Departments.

Hence, tiger conservation requires streamlining efforts of all actors, especially in times of rapid ^{economic} growth.

17. What are the reasons for indiscriminate sand mining from rivers in India? Analyse its adverse effects on economy and ecology of the region. In context of the 2015 guidelines released by the Ministry of Environment and Forests, highlight the measures that can be adopted to curb the practice of sand mining.

भारत में नदियों से अंधाधुंध रेत खनन के कारण क्या हैं? उक्त क्षेत्र की अर्थव्यवस्था एवं पारिस्थितिकी पर पड़ने वाले इसके विपरीत प्रभावों का विश्लेषण कीजिए। पर्यावरण एवं वन मंत्रालय द्वारा वर्ष 2015 में जारी दिशा-निर्देशों के संदर्भ में, रेत खनन पर अंकुश लगाने हेतु अपनाए जा सकने वाले उपायों पर प्रकाश डालिए।

Demand for Sand by construction sector

is met by mining in river beds and coastal areas.

Reasons for indiscriminate mining

- ① Rapidly growing demand from construction sector has led to ~~the~~ sand shortage
- ② Illegal mining is rampant especially in UP and MP.
- ③ Poor implementation of environmental laws lead to indiscriminate mining, e.g., EIA is seldom done.

Measures to curb sand mining are

- ① Zones of high depositional activity
in river banks should be utilised
for mining
- ② Threshold over depth of mining
should be implemented
- ③ Mining 'no-go areas' should be
clearly defined using pillars.
- ④ Dams' bottom should be used
for mining.

Given rise in frequency of
shifting of river channels, there
is a need for balancing economic

and ecological goals.

18. India's commitment to Disaster Risk Reduction (DRR) is evident from the fact that it became one of the first countries to align its National Disaster Management Plan (NDMP) with the Sendai Framework. What are the salient features of India's first National Disaster Management Plan (NDMP)? How can this plan help in effective disaster management?

आपदा जोखिम न्यूनीकरण (डिजास्टर रिस्क रिडक्शन: DRR) के प्रति भारत की प्रतिबद्धता इस तथ्य से स्पष्ट होती है कि यह अपनी राष्ट्रीय आपदा प्रबंधन योजना (नेशनल डिजास्टर मैनेजमेंट प्लान: NDMP) को सेंडाई फ्रेमवर्क के अनुसार संरेखित करने वाले सबसे पहले देशों में से एक बन गया है। भारत की प्रथम राष्ट्रीय आपदा प्रबंधन योजना (NDMP) की मुख्य विशेषताएँ क्या हैं? यह योजना प्रभावी आपदा प्रबंधन में किस प्रकार सहयोग कर सकती है?

Given India's high vulnerability to earthquakes, floods, cyclones etc, India has responded by adopting National Disaster Management Plan (NDMP)

Salient features

- ① It focusses on Disaster Risk Reduction (DRR) by emphasising on 'managing risk', not disaster.

- ② Vulnerability mapping of hazard prone zones is given due attention.
- ③ Disaster resilient infrastructure will be created by implementation of Building Codes.
- ④ Introduction of DRR in the curriculum of schools as well as professional courses of architecture etc.
- ⑤ Building local capacities for effective first response is also highlighted.
- ⑥ Relief measures will be expedited by regular mock drills. This will facilitate civil - military coordination.

Role of NDMP in effective management

- ① It emphasises all the components - prevention, relief and rehabilitation
- ② It will create a culture of prevention
- ③ It will lead to an effective system for providing relief.

However it should also focus on following -

- ① Roping in NGOs for developing local capacities
- ② Media sensitisation for bringing clarity of role.
- ③ Raising awareness about emergency contact points.

19. Recent instances have led many to not use plastic or electronic transactions, despite the convenience. Discuss the issues associated with the rise of currency in circulation in the economy in recent times. Also, highlighting the advantages of a cashless economy, suggest measures required to bolster its popular acceptability.

सुविधाजनक होने के बावजूद भी, हाल की कुछ घटनाओं ने बहुतों को प्लास्टिक या इलेक्ट्रॉनिक लेन-देन से बचने के लिए प्रेरित किया है। वर्तमान समय में अर्थव्यवस्था में मंचलित करेंसी की मात्रा बढ़ने (मुद्रा के चलन में वृद्धि) से संबद्ध मुद्दों की चर्चा कीजिए। साथ ही, कैशलेस अर्थव्यवस्था के लाभों पर प्रकाश डालते हुए, इसकी लोकप्रिय स्वीकार्यता को बढ़ाने के उपाय सुझाइए।

On Cash-GDP ratio, India remains
an outlier from the trend of
Emerging Market Economies (EMEs).

Issues associated with rise in currency use

- ① Parallel black economy encourages use of currency.
- ② Transaction ~~credit~~ history is not available, preventing expansion of formal credit
- ③ It raises vulnerability due to counterfeiting of currency.

- ④ Lack of financial inclusion is a major cause
- ⑤ Merchant fee & other costs lead to preference for cash.

Advantages of cashless economy

- ① Costs of printing money are reduced
- ② Savings will be ~~not~~ roped in financial system, leading to increase in investible surplus.
- ③ Financial markets will deepen, thereby reducing capital costs.
- ④ Monetary policy transmission will rise

- ⑤ Tax evasion will become difficult, helping fiscal discipline.

Measures to boost popularity

- ① Digital solutions like UPI, BBPS (Bharat Bill Payment system) will encourage use of plastic money.
- ② Fiscal incentives like tax concessions if a specified share of expenditure is done through cashless means
- ③ Awareness generation about security
- ④ Cyber security should be raised.
Recent debit card data leaks have hurt consumer confidence.

20. Whereas proliferation of traditional nuclear weapons has long been a concern, the issue of dirty bombs and orphan sources has also become important in recent years. Explain what a dirty bomb is and highlight the concerns linked with nuclear terrorism in India. In this context, what are the issues that need to be addressed to effectively ensure the security of nuclear material in India outside the already secured nuclear installations?

यद्यपि पारंपरिक नाभिकीय अस्त्रों का प्रसार लंबे समय से चिंता का विषय रहा है, किन्तु डर्टी बमों एवं अज्ञात स्रोतों (लावारिस स्रोतों) का मुद्दा भी हाल के वर्षों में महत्वपूर्ण हो गया है। व्याख्या कीजिए कि डर्टी बम क्या है एवं भारत में नाभिकीय आतंकवाद से सम्बद्ध चिंताओं पर प्रकाश डालिए। इस संदर्भ में, भारत में पहले से सुरक्षित नाभिकीय प्रतिष्ठानों के बाहर स्थित नाभिकीय सामग्री की प्रभावी सुरक्षा को सुनिश्चित करने हेतु किन मुद्दों को संबोधित किए जाने की आवश्यकता है?