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GENERAL STUDIES (TEST CODE : 763)

Name of Candidate	Anmol Jain		
Medium Eng./Hindi	English	Registration Number	22534
Center	Bhopal	Date	18/11/16

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 ENGLISH.
इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी 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. 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।

Govt holds majority of shares in public sector, ~~is~~ thus public sector is vulnerable to interference by govt.

Autonomy is needed to ~~to~~ generate professional business practices and avoidance of excessive interference by govt.

Further there is need to balance autonomy ^{with} accountability ~~with~~ for better delivery of public service and business environment.

Accountability checks conflict of interests within the public sector; it also improves work ~~&~~ and professional ethics.

Managing both autonomy and accountability is challenging. This can be seen from following examples:-

- 1) Public sector banks :- they have a dual purpose of maintaining financial viability and improving financial inclusion or supporting govt in social sector schemes. Domination by govt results in ~~other~~ losses for PSB.
 - 2) NPA problem in PSB is because of dubious handling of loans - populist measures like loan waivers ~~are~~ by govt; similarly giving loans to defaulters like Malaya.
 - 3) Utilities like AIR India, BSNL have continued their unprofessional practices because of lack of accountability.
 - 4) Discoms are debt because of policies of state govt which doesn't allow creation of a uniform & electricity market - thus controlling the price.
 - 5) Gujarat petroleum company's exploration in KG basin resulted in huge loss to public funds - this is partly because of lack of accountability and presence of significant autonomy.
- Further balance is needed to implement the provisions of companies act 2013

which mandates a women director and
truly independent directors within the
board.

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।

Formal institutional lending in rural areas, especially to farmers have remained poor because of following reasons:-

Social reasons

Farmers ~~are~~ considering taking money from moneylenders, relatives etc as a social norm and traditional practices.

Lack of financial inclusion

Absence of physical banking infrastructure in rural areas; unavailability of banks, financial illiteracy. Further there is an apathy towards digital systems because of digital illiteracy.

Digital divide and illiteracy doesn't allow penetration of digital banking.

Constraints for banks

Banks prefer operating in urban areas.

Further rural lenders / farmers are perceived as a cause of bad debts — because of rainfall Indian agriculture.

— Opening up of bank a/c in rural areas is unviable for banks.

that should be steps taken to improve the formal credit : —

- ① Differentiation of banks by diversifying their expertise — payment banks and small banks. \$
- ② Use of \$ ICT — Jan Dhan yojana, adhaar and mobile to improve financial inclusion.
- ③ — Improving digital connectivity via Bharatnet
Improve insurance cover — covering farmers crops, cattle etc under insurance
- ④ Promoting SHGs and other micro finance institutions
- ⑤ Education and awareness towards e-banking services.

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।

Outward FDI is investment made by Indian firms outside India. There will be several direct and indirect benefits to India from outward FDI.

Direct benefits

Political

- ① It will improve India's relations with other countries.
- ② India will be able to generate support from countries in regional and multilateral bodies — because of better ties.

Economic

- ① It will raise India's global position as a major economic power.
- ② Outward FDI will have better returns in future. It will make India more sustainable & resilient to

external shocks because of diversification in economy.

Resources — energy security

- ① Indian businesses have invested in oil and gas fields in Venezuela, Africa, middle east

Further FDI by India results in development and economic growth of other countries. This improves India's position as world leader. It has many indirect advantages as well :-

- In domestic markets and business — best foreign practices are taken up indirectly.
- It strengthens India's stand of global development and reduction in inequality among nations

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 has remained poor; inspite of changes in reposite by RBI the banks have not changed (lowered) their rates. This is because of following reasons:-

- ① Weak balance sheets of banks. because of rising amount of NPA.
- ② Double side repression on asset side of banks balance sheet reduces the availability of \$ credit.
—SLR, PSL norms
- ③ Banks prefer to keep SLR, more than mandated requirement of 20% to around 25% \$ because its secure investment.

- ④ Banks face competition by small saving schemes like Kisan patra which offer huge rate of return. Further public savings have reduced ^{due} to purchase of gold etc. This reduces the ability to give credit.
- ⑤ Bank base rate is based on average cost of lending instead of marginal cost.

Marginal cost of lending helps in deciding the base rate at which a bank gives loan for different items say vehicle loan, education loan or home loan.

MCLR ~~has~~ introduced by RBI has a provision that links this base rate to policy rate of RBI. ~~Thus~~ Further MCLR has to be revised every 2-3 months. Thus this increases the monetary transmission in India. Still measures are needed to tackle NPA, financial repression and structural rigidities.

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 दवाबकारी 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।

Informal sector employs 93% of India's workforce. There are several constraints in formalising \$ workforce:-

① Legal constraints:

Multiple labour laws, ID Act, Factories act etc limits the size of factory and distorts the incentive to employ more workers or grow the firm.

② Unskilled population.

Lack of skill in work force ~~and~~ ^{them} ~~for~~ to unskilled low paid work.

③ India's economic growth has been a jobless growth — this forces the population into casual~~work~~ work.

④ India's economic growth has not been driven by manufacturing sector, which will employ more people, but by

service sector.

- ⑤ Huge population, inter-state ^{economic} disparity, labour laws ~~etc~~ etc are other constraints in forming work force.

These constraints can be overcome by:-

- ① Labour reforms. — this will ~~reduce~~ promote the ~~comp~~ factories to grow.

Further govt needs to withdraw all tax ~~and~~ other incentives that promotes small size of company.

- ② India needs to invest in its manufacturing sector — ~~that~~ which are labour intensive like textiles. — Make in India

- ③ Need to regulate construction sector — as it is the major source of formal work force.

- ④ Rural industrialisation and entrepreneurship to stop distress migration and address disguised unemployment in agriculture

- ⑤ Promotion to food processing industry. Other reforms in banking, industries, FDI are also needed. India needs to

skill its ~~to~~ people to utilise its demographic dividend.

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।

Objectives of public debt management in India are :-

- 1) To provide credit to central and state govt
- 2) To manage public debt within a manageable limit
- 3) Reliance on ~~not~~ domestic debt over external borrowing.

There are many reasons why PDMA is needed in India. Some are:-

- ① Presently RBI manages public debt, it also is responsible for targeting inflation i.e. monetary policy. Thus RBI undertakes Open market operations, changes policy rates — this generates a conflict of interest within the RBI's

role as ~~B~~ debt manager and inflation targeting.

- ② Conflict of interest in RBI doesn't allow proper management of both of these.
- ③ Separating function of debt management and inflation targeting has been done globally with good results.

But inspite of various advantages there are following issues :-

- ① The fundamental conflict b/w ~~the~~ debt management and inflation targeting would not solve until the govt take measures for fiscal consolidation.
- ② RBI till now managed both central and states public debt. Thus creation of institutional mechanism is challenging taking in mind the federal structure.
- ③ RBI provides a group of professional experts to manage debt. This human resource would be another challenge

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 बर्चा कीजिए कि क्या भूमि-धारण करने की सीमा ने भारत में कृषि क्षेत्रक की वृद्धि को दमित किया है?

Indian ~~national~~ independence movement aimed to establish an egalitarian society by redistributing wealth and resources among the country's population. Rationale behind land ceiling on agri. land holding are following:-

- 1) Reducing social inequalities:-

Indian society attaches social ~~pr~~ standing of person to size of land. Thus ceiling land and redistribution was a measure to reduce the domination of moneylenders, zamindars and upper caste.

- 2) Reducing economic inequalities:-

Ceiling lands was a part of land reforms. This was a measure to provide an income source to farmers, tenants and sharecroppers. Ceiling was also to promote self cultivation by rich

farmers as it exempted their lands.
Thus it promoted investment in agriculture.
3) land ceiling was also a measure to improve political standing of marginalised community.

But land ceiling despite of its various socio-political and economic advantages has stifled Indian agriculture:-

- 1) It has led to fragmentation of land
— making it ^{economically} unviable; it promoted sustenance agriculture
- 2) It has reduced the scope of mechanisation
— thus reduced productivity.
- 3) ~~low~~ small land size combined with govt subsidy on fertilizers, water and electricity has led to over utilisation
— making soil infertile.
- 4) loss of land because of division structures
Further it has disincentivised capitalist agriculture in India.

Measures like contract farming and cooperative farming could address

this problem. Model Land lease law^{is} also
~~allow~~ a step in right direction

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?

Export promotion has various positive effects on employment potentials, realising this India has made its FTP (2015-20) to promote exports. Following are its objectives:-

- 1) Improve the India's share of total world export. to 3.5%.
- 2) Double the total amount of exports by 2020.
- 3) It has focused on make in India ~~and~~:

To seek these objectives the foreign trade policy creates:-

- 1) MEIS - merchandise export from India scheme by clubbing various schemes for goods export.
- 2) Similarly SEIS service export from

India scheme for service sector.

3) The policy also makes the duty free scraps as tradeable and transferable — thus improves the work environment

4) The policy also focuses on collaboration b/w various govt schemes like skill India mission, digital mission and make in India.

India
It has taken other measures to improve ease of doing business like ratifying TFA, development of infrastructure — roads corridors, DFC, inland waterways, sagarmala project for ports, taxation reforms — GST to reduce cost of exports and new IPR policy to facilitate innovation and entrepreneurship.

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?

Differential banking is banking operation in which banks take up certain vertical of banking operation in which they could specialise — like Payment banks specialising in remittances. This system will promote financial inclusion in India by :-

- ① Providing cheap and innovative solutions to problems.
- ② Differential banks could streamline their operations by targeting a certain population ~~eg~~ small banks and payment banks in rural areas. Payment banks providing saving and remittance transferring facility could help migrant labours. whereas small banks could provide

- banking facilities & in rural areas
- ③ Differential banking helps in diversification of banking operation, it also allows private entry in banking system
- retail chains, telecom companies, post offices could use their expertise.

Challenges for these banks are:-

- ① Norms by RBI — high SLR and PSR
~~the~~ quota for small banks; payment banks can't ~~take~~ give loans which hurts their viability.
- ② Existing advantage to small saving schemes. —
- ③ Peer-to-peer lending system like UPI have increased competition
- ④ Financial illiteracy, digital divide and complexity because of multiple a/cs
— Jan dhan a/c, payment bank a/c etc will be difficult for ~~uneducated~~ ^{uneducated} population.

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?

Indian railways revenues have taken a slump because of following reasons:-

- 1) Populist measure take by govt by cross-subsidising passenger fare with goods fare. Railways serve the dual purpose of low fare for people and economic viability.
- 2) Slow movement and congestion leads to reduced efficiency — In India both the freight and passenger trains operate in same lines.
- 3) Railways are a monopoly in India — thus lack of competition leads to lack of professionalism.
- 4) Railway ministry has to pay dividend to finance ministry — thus there is a need to merge the two budgets

5) Lack of autonomy leads to populist measures like investment in railway operation outside railway, low fare etc — it also ~~promotes~~ reduces the scope of laying off ~~to~~ extra workforce.

6) Reliance on obsolete technology, large no. of railway crossing etc also reduces efficiency.

Dynamic ~~fare~~ fare pricing will partly solve the problems faced by railway. But it is a step in right direction to stop cross-subsidisation and targeting a certain class of population will also serve the social purpose of railways. Railways also need to provide services to retain people — and not shifting to airways. If it fail to provide services then it would be wrong to charge extra without any value addition.

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 a digital platform developed by google which allows a person to digitally view a certain location. It is basically a virtual map of the actual location.

India has refused to allow street view services in the country because of following reasons:-

- 1) Security reasons:- street view will be accessible to everyone everywhere — This allows terrorist to plan their attacks as was the case in Pathankot attacks.

With rising digital ~~proficiency~~ proficiency of terrorists — this street view has a lot of avenues for misuse.

- 2) ~~the~~ Lack of compliance, by foreign based companies, of Indian laws.
Google has earlier refused may order under section 69 of IT act 2000
- 3) Privacy of indian citizen is infringed as street view ~~captures~~ project uploads images without taking individuals consent.

Indias shouldn't outrightly ban the streetview project as it has advantages in taking up relief and rescue operation during disasters, it also promotes tourism industry.

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।

UAVs is a remote controlled aircraft device which can be used for surveillance, geospatial mapping, ~~and~~ forest mapping, crop & pattern etc. They pose a challenge as they transcend the conventional domains of nation security, privacy and business practices. Firstly because they could be used to spy, to get location of military targets. Secondly it is very difficult to regulate ~~the~~ UAVs.

Regulations by DGCA to check misuse of UAVs are:-

- 1) It requires permission by ~~gov~~ authority before using UAVs.
- 2) It prohibits its use in Delhi and near border areas.
- 3) It prohibits drones in controlled air space for air crafts

Significance of UAVs in achieving goals of inclusion development are:-

- ① It will help in improving agriculture income — by improving productivity, by ensuring crop cover check in ~~insurance~~ insurance
 - ② It will help in disaster ~~rescue~~ ^{rescue} and relief operations.
 - ③ help in monitoring deforestation and also afforestation under CAMPA →
 - ④ It will help in tackling wildlife poaching, smuggling across borders etc.
- It can also ~~help~~ help in delivering supplies — food, medical supplies etc.

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 (आर्टिफीसियल 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 is performance by ~~an~~ a computer system which requires human intelligence such as perceiving smell, translating language, emotional response etc.

It could be a game changer in delivery of government services :-

- 1) It will reduce corruption in payments, auctions etc.
- 2) It will improve the ^{effectiveness and} efficiency of govt services by reducing human interface — delivery of MGNREGA funds, DBT, BAPV systems.
- 3) It will lead to inclusive growth as it will help in education and health facilities in rural areas. It will

also improve the quality of services
4) It will improve the transparency of system

But certain aspects of good governance like responsiveness, rule of law, accountability and participation by public are excluded from AI.

Challenges that lie in use of AI:

1) Expensive — thus the costs outweigh benefits in present context.

2) Low RnD by India in case of AI

3) Lack of awareness and policy paralysis in case of exploitation of AI.

4) Huge cost of replacing humans — leading to unemployment etc

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 कमबस्टन 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 use electricity stored in battery as fuel & ; this has following advantages over internal combustion engine vehicles :-

- ① Environmental costs are very less as compared to (ICE). It reduces the amount of GHG emitted by transport industry which is $\approx 15\%$. Thus it helps in achieving INDC.
- ② Efficiency of fuel to cost is greater for electric vehicles.
- ③ It shifts economy away from reliance on fossil fuels. This will reduce our import bill, current account and trade deficits. Thus govt will

be able to spend more on social security schemes.

- ④ It will reduce India's reliance on foreign nations for energy security.

Challenges that needs to overcome are

- ① High cost of electric vehicles as compared to ICE. Further these vehicles are not able to store e^- for larger journeys.

- ② Grid connectivity is poor in India.

Further power sector faces many challenges from debt of discoms to underutilised capacity.

- ③ Generation of electricity too has its environmental impacts — thus EV will ~~be~~ force creation of more dams, thermal plants etc — which will damage ~~the~~ environment.

India needs invest in R&D to reduce the cost of these vehicles

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?

Montreal protocol on ozone depleting substances (ODS) gives binding targets to countries to ban (ODS) in a phased manner and substitute ODS with substance that do not damage ozone layer like HFC (Hydro fluoro carbons). This protocol has helped in replenishment of ozone layer but has created a problem of global warming due to high green house potential, i.e. 14,800 times that of CO₂, of HFC. This will lead to adverse effects to environment and climate change. Kigali agreement has addressed this problem by following :-

- 1) It has set binding targets for countries to phase out use of HFCs. Thus no country would be using more than 15-20% of HFC by 2045 of their respective base years.
- 2) This agreement ~~is~~ puts targets for developed, developing and least developed countries — thus is comprehensive.

Although there are certain challenges like —

- 1) Technology transfer mechanism is not clear
- 2) Funding mechanism is not established to help the domestic industries.

Thus Kigali agreement will help in achieving targets of Paris agreement. It not resolves the conflict b/w two agendas. It also creates awareness of climate change.

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।

Challenges in maintaining the tiger population in country :-

- 1) Managing development ~~is~~ and protection of wildlife ~~is~~ economic growth :-
 - growth requires physical infrastructure like roads and railways, dams etc which leads to deforestation and reduces silt to silted (sunderbans)
 - eg NH7 in Panna tiger reserve - MP.
- 2) Lack of regional cooperation leads to disputes and creates barriers for migration for tigers : eg India Pak border is fenced.
- 3) Inter-state cooperation is lacking
 - in reallocation of tigers

- 4) Numerous disputes ~~and~~ between govt dept and ministries. — Tribal ministry — environment ministry — forest dept.
- 5) ~~Integrate~~ Poaching activities and smuggling.
- 6) Inadequate conservation funds and infrastructure like zoos.

Strategy adopted by India: —

- ① ~~Be~~ specie based conservation approach — Project tiger.
- ② Global initiative — Global tiger initiative collaboration with CITES, TRAFFIC to ~~be~~ check smuggling.
Projects by IUCN to count tigers in India.
MAB initiative to reduce man-animal conflict.
- ③ Conservation parks — National parks and sanctuaries.
- ④ Legal framework — ~~is~~ Wildlife conservation board, Wildlife Act, environment protection act, NTCA etc.

Measures to improve condition are:-

- 1) Creation of corridors between national parks; — ~~ex~~ Bhutan's experience could be implemented in India.
- 2) Use of satellite and other technology to check deforestation.
- 3) Using CAMPA funds to revive forest cover.

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।

Sand mining in India is done because of following reasons:-

- 1) Increasing population leads to demand of sand for housing purposes.
- 2) Infrastructure development - roads, ports, dams etc ~~and~~ require sand.
- 3) Companies try to reduce their transport cost by using locally available sand.
- 4) ~~lack~~ Lack legal framework and its implementation, corruption, mafia-politician nexus ~~and~~ are administrative failures that ~~are~~ are unable to check sand mining.

Sand mining has following disadvantages

ecology

- ① Reduce silt to deltas —
- ② ~~It~~ breaks the natural levee —
makes ~~the~~ prone to flooding.
- ③ Impact on wildlife — gharial population
has declined because of it.

economy

- ① Unregulated sale ~~leads~~ of sand generates
black money — which leads to
other economic effects like money
laundering, tax evasion etc.
- ② Floods and other disasters will damage
infrastructure, and human life —
with adverse consequences

Measures to curb the practice of sand
mining :-

- ① Amending Mines & mineral act which
makes sand a ~~minors~~ mineral.
- ② Inacting a national legislature to
regulate construction — by certifying
the raw materials.
- ③ Regulating real estate.

④ Improving implementation of existing laws
Empowering state police to check sand
mining is of utmost importance

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?

Indias disaster risk reduction ~~has~~ mechanism is aligned with Sendai framework. It now focuses on 4 parameters

- Understanding the risk.
- Mitigation of risk by risk governance
- Investment in risk reduction.
- Risk preparedness and response.

Salient features of NDMP

- ① Integration between all govt agencies involved in different phase of disaster management
- ② It covers all aspects of disaster

prevention, mitigation, response,
recovery and rehabilitation through

③ It focuses on creating ^{awareness} education,
using media

④ It mandates strengthening of India's
disaster response force.

⑤ It promotes community involvement
in disaster risk reduction.

It also focuses on international cooperation
in technology transfer — eg from Japan
to make earthquake resistant building

This plan will promote involvement
of community, international collaboration
and adoption of best practices for
disaster management.

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 संचालित 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 सुझाए।

Rise in currency in circulation
has led to following challenges:-

- 1) It leads to unaccounted transaction in case of smuggling of drugs and other crimes.
- 2) Cash is used in election to secure voters and election campaign.
- 3) Cash transaction in real estate leads to benami transaction.
- 4) Cash allows for corruption in delivery of public services.
- 5) Increased ~~sur~~ circulation can also be because of rise in counterfeiting.

- Cash ~~leaves~~ leaves scope for counterfeiting.

Advantages of cashless economy:

- ① Increase efficiency of ^{quality} ~~cash~~ transaction
- ② Check black money ^{generation, transfer} ~~required~~ and laundering.
- ③ It will improve delivery of financial services by the govt. eg use of DBT to transfer MGNREGA wages
- ④ It reduces the expenditure of creating currency
- ⑤ It will improve financial inclusion

Measures to boost its popularity:

- ① Creating awareness among people
- ② Demonitisation of currency.
- ③ Digital platforms like UPI should be promoted.
- ④ Boost to start ups to deliver services — PayTM.

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?

Dirty bombs are ~~nuclear~~ bombs made of nuclear material from nuclear technology in power plants, medical equipments etc. These are used by terror groups. Thus it ~~makes~~ is imperative to invest in nuclear security by India. because of following concerns:-

- 1) Porous border ~~with~~ ~~and~~ with nuclear state of Pakistan with dubious nuclear record and presence of large Indian coastline.

External threat of nuclear terrorism from Pakistan looms very high.

- 2) Indian civil and military nuclear facilities needs protection
- rise in left wing extremism
 - Internal secessionist movements in J&K and NE.

Issues that need to be addressed to ensure security of nuclear material outside the secured installation like those used in medical appliances, research laboratories etc:

- 1) ~~The~~ records of movement of such waste devices has to be maintained.
- 2) Disposal units should take measures to segregate wastes.
- 3) Police force should be strengthened
- 4) India needs to control import - export of such devices.