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GENERAL STUDIES (TEST CODE : 1244)

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Medium Eng./Hindi	Eng	Registration Number	429074
Center	Online	Date	01-09-19

INDEX TABLE			INSTRUCTIONS
Q. No.	Maximum Marks	Marks Obtained	- 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 & HINDI 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।
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Total Marks Obtained:			
Remarks:			

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EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

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All the Best

1. Discuss the need of an Independent Fiscal Council (IFC) in bringing about transparency and accountability in fiscal processes in India. (150 words) 10

भारत में राजकोषीय प्रक्रियाओं में पारदर्शिता और जवाबदेही का समावेश करने हेतु एक स्वतंत्र राजकोषीय परिषद (IFC) की आवश्यकता की चर्चा की जाए।

NIC High Committee on review of PRBM act, 2013 had recommended for setup of an independent Fiscal Council for fiscal discipline in India. Some features as recommended:-

- ① Committee to suggest ways to maintain fiscal discipline.
- ② If fiscal target is not within the range the IFC need to permit the govt. to doing so.
- ③ In case of urgency or economic turmoil, IFC can allow revised fiscal targets.

Need for such a committee:-

- ① Check populism of electorally chosen government that might give into popular demands.
- ② Maintain fiscal discipline and bring professionalism.

(iii) Keep track on the progress of fiscal spending and raise alerts for future.

(iv) Devise a common platform for govt, RBI and other bodies for a coherent fiscal policy.

Recent farm ^{loan}-waivers by various state governments and UDAY scheme and demands for minimum basic income are warnings for fiscal environment in India and therefore require prudent measures to reign in populism and allow future sustained economic growth of the country.

2. Recognizing the potential of exports in generating employment, a number of steps need to be taken to address India's weakening export competitiveness. Analyze. (150 words) 10

रोजगार सृजन हेतु निर्यात क्षेत्र की क्षमताओं की पहचान करते हुए, भारत की कमजोर होती निर्यात प्रतिस्पर्धा को संबोधित करने हेतु कई कदम उठाए जाने की आवश्यकता है। विश्लेषण कीजिए।

New Export policy aims to double share of Indian exports of total world trade from around 1.6% to more than 3%.

This involves extra thrust upon agricultural export policy and 'make in India' for manufacturing.

Challenges of Export Competitiveness of Indian economic setup:-

- ① Lack of export chains of global standards from producer to exporter.
- ② High logistics cost (14% of GDP) to be reduced to (9% of GDP)
- ③ Lack of clear regulations and ease of doing business.

- (4) Poor critical infra like electricity, fuel.
- (5) High taxation and difficulty in tax filings.

Way Forward:

- ① Promote skilling, apprenticeship and vocational education to bridge skill deficit gap.
- ② Promote Inland waterways, airways, proper freight railways and world class road infra for reducing logistics cost.
- ③ Entrepreneurship and ease of doing business to be promoted.
- ④ IPR and innovation boost

China is rising as an investment destination, before Vietnam and other countries take over, we should boost our efforts in this direction. MSMEs, SEIs, Make in India, GST, support to MSMEs are some of these steps.

3. Highlighting the main features of National Mineral Policy, 2019, discuss how it can help in ensuring sustainable and responsible mining.

(150 words) 10

राष्ट्रीय खनिज नीति, 2019 की मुख्य विशेषताओं पर प्रकाश डालते हुए, चर्चा कीजिए कि यह संधारणीय और उत्तरदायित्वपूर्ण खनन सुनिश्चित करने में कैसे सहायता कर सकती है।

moving on from NSMP and MIMP and send mining policies, govt. has brought an overall national mineral policy, 2019 to for healthy promotion and regulation of this sector.

Some features of the policy:

- ① Open Acreage policy promotion
- ② Allow private players to suggest blocks of mining and then govt. can open them for bidding.
- ③ Provide linkages to coal and other plants to use minerals.
- ④ Elements for environmental and community support.
- ⑤ Strengthening and mandating contribution to District Mineral Funds (DMFs)

How it is supposed to ensure sustainable and responsible mining.

- ① EIA, contribution to DMF and social audit will ensure benefits to local community.
- ② Open up new areas for mining thus reducing pressure upon already ones.
- ③ Lead to exploration of new areas, minerals such as Deep Ocean Mission.
- ④ Bring predictable and clear regulations for all sectors including coal, sand, energy, metal etc. National Steel Policy, Coal Block allocation measures, categorising mining as an industry are some of the demand initiatives in the sector to be strengthened further.

4. Highlighting the salient features of the PM JI-VAN Yojana, analyze how it can assist in achieving the vision and goals of the National Policy on Biofuels, 2018. (150 words) 10

"प्रधानमंत्री जी-वन योजना" की मुख्य विशेषताओं पर प्रकाश डालते हुए, विश्लेषण कीजिए कि यह जैव ईंधन राष्ट्रीय नीति, 2018 की दृष्टि और लक्ष्यों को प्राप्त करने में किस प्रकार सहायक हो सकती है।

Pradhan mantri Jai Indhan
Swataren Yojana is a commendable
push to biofuels in the country

Salient Features include:

- ① Include non-food crops for bio-fuel production.
- ② Target for 20% methanol blend in petrol.
- ③ 15% bio-ethanol, 25% bio-gas and other biofuel catagorisation to be achieved in phased manner.
- ④ Create ecosystem for bio-fuel adoption by distributors, consumers and auto-makers.

Benefits of Such a scheme in
realising goal of National Biofuel
Policy, 2018:

- ① Promote investment and R&D in bio fuels sector.
- ② Allow growth of non-food crops like Jatropha.
- ③ Allow use of sugar bagasse (waste) to converted to bio-fuel.
- ④ Aligned with other efforts in bio-ethanol, bio-methanol, Bio-GNS, H-CNG, Bio-gas plants.

Bio-fuels are instrumental in giving alternate livelihood to farmers for low agricultural productivity areas, also help in reduce import bill and help achieve INDC targets to reduce carbon emissions.

5. Zero Budget Natural Farming (ZBNF) provides an alternative to capital and chemical intensive agriculture currently being practiced in India. Analyze.
(150 words) 10

जीरो बजट प्राकृतिक कृषि (ZBNF), भारत में वर्तमान समय में प्रचलित पूंजी और रसायन गहन कृषि का एक विकल्प प्रदान करती है। विश्लेषण कीजिए।

As devised by Subhash Palekar and fairly getting popular in Maharashtra and Andhra Pradesh like states ZBNF can help reverse agricultural soil deterioration and help growth in farm sector.

Features of ZBNF :

- ① ~~less~~ seed sowing and no buying from outside.
- ② Reuse of wastage to form bio-mass to be used as manure and fertilisers.
- ③ Effective means of irrigation and water harvesting to save costs and water.
- ④ Scientific crop selection to avoid loss and damage and

maintain soil fertility.

Limitations to ZBNF:-

- ① Not as successful in Maharashtra to be implemented overall.
- ② Many farmers are returning back to original methods.
- ③ Requires heavy labour and scientific management, not easy in Indian context.
- ④ In the start, may affect food security.

Initiatives like ZANF, 2000-Hiry, Organic Farming require more study and tuning in decentralised manner as suited to particular agricultural systems. Salinisation and declining soil productivity is a cause for concern and requires urgent measures to promote sustainable inclusive growth.

6. Marine life is facing 'irreparable damage' from the millions of tonnes of plastic waste which ends up in the oceans each year. In this context, examine the implications of plastic pollution on marine ecosystem and suggest some measures for addressing this problem. (150 words) 10

समुद्री जीवन, प्रति वर्ष समुद्र में पहुँचने वाले लाखों टन प्लास्टिक कचरे के कारण 'अपूरणीय क्षति' का सामना कर रहा है। इस संदर्भ में, समुद्री पारिस्थितिकी तंत्र पर प्लास्टिक प्रदूषण के प्रभाव का परीक्षण कीजिए और इस समस्या के समाधान हेतु कुछ उपाय सुझाइये।

Honolulu Strategy for tackling marine pollution has been devised. India is dedicated member to it and is already has started taking steps in this direction. such as banning of single-use plastic from October, 2.

Implications of Plastic pollution on marine ecosystems.

- ① Works as bio-accumulator in marine environment.
- ② Can be consumed by large and small fishes.
- ③ Decomposes to release harmful chemicals after long time under

sun, in water.

- ④ Gets into the lungs of ~~a~~ anthropias, causing fatal damage.

Measures to check this:

- ① Coastal management to reduce throwing up of waste and pollution on beaches and all.
- ② Check into discharge by sewage, industries only after proper treatment.
- ③ Pollution caused by shipping industry is no less detrimental.
- ④ Fishing industry is huge contributor to such marine pollution.

Ocean Cleanup for Great Pacific Garbage Patch; Blue Flag Coastal Scheme to cleanup coasts; UN Convention on Law of Seas for pollution via ships are some significant global efforts in this direction.

7. Write a short note on the evolution of Bharat Stage norms in India. Also discuss the significance and challenges posed by the planned introduction of BS-VI norms in India from the year 2020. (150 words) 10

भारत में भारत स्टेज मानकों के विकास पर एक संक्षिप्त टिप्पणी लिखिए। साथ ही, वर्ष 2020 से भारत में BS-VI मानकों को योजनाबद्ध रूप से लागू किए जाने के महत्व और उसमें आने वाली चुनौतियों की भी चर्चा कीजिए।

Skipping BS-V India has decided to move to BS-VI directly from BS-VI.

They are inspired from Euro standards at same level. Earlier their implementation was late, but now focus has been higher for its effect on city pollution and emissions.

Significance of such introduction:

- ① Significantly reduce sulphur emission to 20% of original.
- ② Reduce Nitrogen and PPM emissions as well.
- ③ Improve engine efficiency and overall reduce city pollution for which vehicular emission has more

then 40% contribution.

Challenges with BS-VI stage:

- ① Resistance from auto-makers who need to make investment for engine upgrades.
- ② Old vehicles will face pressure.
- ③ Already struggling auto-industry will raise prices thus reducing demand.
- ④ Strict implementation of BS-VI is difficult to carry out.
- ⑤ ~~Full~~ fuel marketing and distributors need to huddle up.
- ⑥ Reduce thrust for e-vehicles.

BS-VI introduction is a very step forward and sustained govt. policy in this direction is commendable but this must not be seen as an end. Rather many more steps need sustained efforts like this, including bio-fuels, e-vehicles etc.

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कुछ ना लिखें)

8. What are black holes? Highlight the challenges in imaging a black hole? How were these challenges overcome by the Event Horizon Telescope project? (150 words) 10

ब्लैक होल क्या हैं? ब्लैक होल के चित्रण (इमेजिंग) में आने वाली चुनौतियों पर प्रकाश डालिए।
इवेंट होराइज़न टेलीस्कोप प्रोजेक्ट द्वारा इन चुनौतियों को कैसे दूर किया गया?

Black hole is the last stage of a star in which it becomes so dense and that it collapses upon itself and has so high gravity potential that no even light can escape that.

Imaging Black hole as recently released was a challenge in itself because no light comes from black hole so its study and detection becomes even more complex.

Technique used by Event Horizon Telescope Project →



Because black holes attract all objects that surround that, space, dust, meteors,

all close heavenly objects race
towards black hole due to
gravity pull.

We know that a particle under
~~electromagnetic radiation~~ ^{acceleration} releases
electromagnetic radiation. So
while these particles get close
to black hole they form a
ring like figure emitting
electromagnetic radiation.

~~It~~ Even Horizon Telescope
could succeed in capturing
these radiations to form an
a ring like surrounding
image of black-hole.

LIGO, CERN are other significant
experiments going on for study
into origin of universe. Indian
efforts are also commendable
such as large telescopes (GROWTH) and
Neutrino Observatory and others.

9. While mentioning the objectives of the Arms Trade Treaty (ATT), discuss the challenges which are hindering the utilization of the ATT to its full potential.

(150 words) 10

शस्त्र व्यापार संधि (ATT) के उद्देश्यों का उल्लेख करते हुए, उन चुनौतियों की चर्चा कीजिए जो ATT को इसकी पूर्ण क्षमता से उपयोगित किये जाने में बाधक हैं।

Arms Trade Treaty is a mechanism at the global level to promote cooperation within nations to ensure safe and peaceful coexistence while upholding each other's sovereignty.

Detailed objectives include:

- ① Promote transparency in Arms Trade across nations.
- ② Reduce corruption, bribery and fraud.
- ③ Ensure that proceeds from these do not end up with terrorists etc.
- ④ Ensure such arms do not

find themselves within dictators
or terrorist organisations.

- ⑤ Ensure arms are not meant
to for aggression but just to
uphold and protect sovereignty.

Challenges in its full optimum
utilisation:

- ① Lack of global cooperation
and openness to divulge
any trade deals.
- ② Fear of some countries by
their competitors to develop
similar.
- ③ Efforts by producers to keep
their tech ~~and~~ secret.
- ④ Middlemen who carry out
these trade deals are very
powerful and take deep cuts
via bribery and manipulation.

10. Threats to internal security of India may be posed both through the communication networks and also to the networks. Discuss. Also, highlight the steps taken by the government in making the networks more secure.

(150 words) 10

भारत की आंतरिक सुरक्षा को खतरा संचार नेटवर्कों के माध्यम से एवं स्वयं संचार नेटवर्कों को खतरा होने, दोनों ही प्रकार से हो सकता है। चर्चा कीजिए। साथ ही, नेटवर्कों को अधिक सुरक्षित बनाने हेतु सरकार द्वारा उठाए गए कदमों पर प्रकाश डालिए।

India has been termed as
more the most cyber security
vulnerable nation.
Today communication networks
form integral link for security
they are both vulnerable for
themselves and to the security
of the nation.

Threats are such as:

- ① Cyber-hacking and cyber warfare
as pushed by Russia, China.
- ② Increasing digitization of country
and reliance on e-governance.
- ③ Financial dependence on
communication networks.
- ④ Privacy and personal data

- millions of Indian users.
- ⑤ lax implementation and unsafe practices in Indian setup for cyber-security precautions.

Some steps taken by Indian Govt. Include.

- ① Botnet Clearing framework and Cyber Swachh Bharat Initiative.
- ② Cyber Swachh Kendras online for cleaning up file systems.
- ③ Establishment of CERT-In, CERT-Fin, National Cyber Coordination Committee (NCCC); Defence Cyber Agency. ~~(DCA)~~
- ④ Holding up Global Cyber Security Conference (GCSC) in 2017 in Delhi.

India should take active steps for ratifying Budapest Convention and take security precautions for 5G, AI, IoT etc.

11. Highlight the importance and challenges related to integration of Variable Renewable Energy (VRE) in India. Mention some steps that can be taken for its smooth integration with the synchronized Indian grid. (250 words) 15

भारत में परिवर्तनीय नवीकरणीय ऊर्जा (VRE) के एकीकरण के महत्व और इससे संबंधित चुनौतियों पर प्रकाश डालिए। ऐसे कुछ कदमों का उल्लेख कीजिए जो समक्रमिक (सिंक्रनाइज्ड) भारतीय ग्रिड के साथ इसके सहज एकीकरण के लिए उठाए जा सकते हैं।

SMART Grid for India is an effort to integrate decentralised energy production including renewable energy into the main grid across the country to solve energy woes both supply and demand side.

Imp Variable Renewable Energy concept allows use of renewable energy as and when available otherwise ~~reality~~ relying upon conventional sources via ~~grid~~ grid.

Importance of VRE

- ① Provide boost to renewable energy generation.
- ② Create demand for renewable energy otherwise not relied upon

③ Reduce energy demand supply gap in India and help reduce critical infra gap in power.

④ Challenges to such integration

① Transmission costs are already very high in India owing to losses and old setup.

② Robust network is critical for such integration that can handle frequent changes and heavy load. Indian experience is poor in this owing to poor transmission infra and set-up.

③ Requires technological advancement and skilled maintenance.

④ Renewable energy generation is very seasonal and inconsistent.

⑤ Power linkages to power plants for heavy power loads are already set-up. power producers may

put resistance to such efforts
at integration of VRE.

Steps that can be taken:

- ① subsidy and tax benefits for
use of renewable energy.
- ② Power Purchase Agreements to
be made more strict flexible
yet effective.
- ③ more funding on project
basis for research into this.
- ④ look towards future of
a South Asia Grid incorporating
neighbouring countries as well.

VRE provides a golden opportunity
for Indian Energy sector to ~~hit~~^{hit}
multiple ~~shots~~ in one goals in
one shot. Towards sustainable
inclusive New India, it will
be a significant step.

12. There have been arguments that India could fall into a 'middle income trap'. Explaining the phenomenon, highlight the reasons behind such arguments. How can India avoid it? (250 words) 15

ऐसे तर्क दिए गए हैं कि भारत 'मध्यम आय पाश' में फंस सकता है। इस परिघटना की व्याख्या करते हुए, ऐसे तर्कों के लिए उत्तरदायी कारणों पर प्रकाश डालिए। भारत इससे किस प्रकार बच सकता है?

Last Economic Survey pointed to the possibility of faster India falling into the middle-income 'trap' for countries like Greece, in Europe and Argentina, Mexico.

'Middle-Income Trap' refers to :

- ① Further economic growth is substantially slowed down after good economic growth in the past.
- ② This occurs mainly due to rising labor, power, living costs in the country that no more makes it an investment destination.
- ③ Domestic supply and demand; Savings & investments are not

enough to sustain growth in future.

Susceptibility of India for falling into such trap

- ① Growth is largely derived from foreign investment.
- ② Skilled labour costs are missing and getting expensive.
- ③ Domestic research in new-age technologies, R&D is missing.
- ④ Small companies are not turning into big. 'Sway charak' of Indian companies.
- ⑤ Poor savings and investment at home.
- ⑥ Poor fiscal discipline, populism and large debt to be repaid.

Way Forward to avoid:

- ① Promote ease of doing business.
- ② High FDI and support via Infra.
- ③ Give boost to Skilling, entrepreneurship.
- ④ Strong research and development, IPR protection and innovation at home.
- ⑤ Defence manufacturing to be promoted.
- ⑥ Formalization and support to small companies to grow big.

NPA's, Corruption, bribery, red-tapism are some of the ills of our economy today that need to be resolved to sustain growth in future for we have a large population still living under poverty to be moved out.

13. Highlighting its importance, discuss the major issues that plague effective monetary policy transmission in India. Also, mention the steps taken by RBI to improve it. (250 words) 15

भारत में मौद्रिक नीति संचरण के महत्व पर प्रकाश डालते हुए, उन प्रमुख मुद्दों पर चर्चा कीजिए जो इसकी प्रभाविता को बाधित करते हैं। साथ ही, इसमें सुधार के लिए RBI द्वारा उठाए गए कदमों का उल्लेख कीजिए।

In 2019, RBI has reduced around 70 basis points but banks have transmitted only 20-25 of it. Recent steps at MCLR based mechanism haven't yield results and requires further efforts and strict enforcement looking into issues of banks' governance.

Importance of monetary policy transmission:

- ① Reduce profiteering by banks and benefit to the intended common men.
- ② To actually bring into effect the monetary policy in the country.
- ③ To bring change in currency

flow and reign into inflation or transmit growth opportunities.

④ Challenges in Monetary Policy Transmission:

- ① NPA issues with banks who want some profits to ensure sustenance.
- ② Large operational costs of banks that need to be recovered from the difference in lending rates.
- ③ Priority sector lending and various other obligations by the banks don't give much space to ensure profits.
- ④ Poor transparency and accountability at bank management and board level for governance.

Steps to check into this:

- ① Changing from Base lending rates to MCLR based system.

- ② Efforts now to move from MCLR to a financial asset pegged rates (Repo rate, Treasury Bills etc.) by RBI
- ③ Moral suasion done by RBI.
- ④ PCA and close monitoring by RBI to sign into NPA issue.
- ⑤ IBC and GST are efforts that aim to bring more ease of doing business and help banks get back money via easy resolution.

Although many arguments are made into ineffectiveness of monetarist policy in India, it still remains a tool to control inflation and promote growth coupled with Fiscal Policy of the nation. Monetary Policy Committee (MPC) has a responsible task at hand and must be done with full integrity.

14. Highlight the constraints faced by rainfed agriculture in India. Discuss some agronomic practices that can be adopted for stabilizing agricultural production in rainfed areas. (250 words) 15

भारत में वर्षा सिंचित कृषि में आने वाली बाधाओं पर प्रकाश डालिए। वर्षा सिंचित क्षेत्रों में कृषि उत्पादन को स्थायित्व प्रदान करने हेतु अपनाई जा सकने वाली कुछ कृषि-वैज्ञानिक पद्धतियों की चर्चा कीजिए।

In a recent report it was highlighted that most of subsidies and support in agricultural sector went to the non-rainfed areas thus leaving rainfed areas to the mercy of rain gods.

Constraints faced by rainfed agriculture in India:

- ① Erratic nonseasonal rainfall pattern.
- ② Over-reliance on rains and not enough measures like irrigation in case of extremities.
- ③ Non surplus production.
- ④ Sometimes too much and

untimely rain causing destruction of crops affecting the crop cycle.

- ⑤ ~~Below~~ Below normal or too much rainfall causing debt-trap not to be paid back due to ~~to~~ absence of ~~surplus~~ surplus production.

Some agronomic practices and measures to resolve issues:

- ① effective irrigation policies and facilities.
- ② making rainwater harvesting structures and recharging ground water to be used later.
- ③ Early warning and prediction systems via forecast to select right sowing strategy.
- ④ growing less water-intensive crops.
- ⑤ Trying multiple cropping,

organic farming and 2BWP.
⑥ Going for non-food crops that
pay more. and allied
agricultural activities like
dairy, livestock, agro-factory etc.

PM Paramparagat Krishi Vikas
Yojana, PM Krishi Sinchayee Yojana,
KISAN SAMPAADA scheme, Nutrient-based
Fertiliser subsidy are some of
the steps taken in addition
KISAN Nidhi that must be
made full use by farmer to
enhance scientific and sustainable
agricultural production.

15. Despite the steps taken by the government in recent years, a number of problems continue to persist in the urea sector in India. Discuss. What reforms should be taken to address the persisting problems?

(250 words) 15

हाल के वर्षों में सरकार द्वारा उठाए गए कदमों के बावजूद, भारत में यूरिया क्षेत्र में कई समस्याएं निरंतर बनी हुई हैं। चर्चा कीजिए। मौजूदा समस्याओं के समाधान हेतु क्या सुधार किए जाने चाहिए?

Recently government has moved towards nutrient-based fertiliser subsidy looking at serious issues in nutrient management in soils in our country.

problems with soils in our country especially related to Urea:

- ① Excessive use of fertilisers which are urea based thus soil nutrient healthy proportion of NPK and others is disturbed.
- ② Black marketing and poor standards of fertilisers provided.
- ③ Poor farmers not getting benefit.

④ Lack of production of other critical fertilisers that otherwise give yet less support from the government.

Some reforms in this sector

- ① Nutrient-based subsidy now that pays to the producer directly as per the composition.
- ② Kisan Soil Health Card and Krishi Vigyan Kendras to strategise soil map management.
- ③ ~~Small~~ sprinkler systems that can distribute fertiliser in the soil along with the water for effective reach and absorption by the soils.
- ④ Moving to 2BNF Organic bio-mass based manure and nutrient supply.

⑤ Digitization and strict penalty over quality control for fertilisers.

Govt. has taken many initiatives in the past and also looking deeply into current trends.

Salinisation and degrading fertility of soil as in Haryana, Punjab is a serious concern and requires multi-stakeholder approach to ensure sustainable agriculture production.

16. What is Access and Benefit Sharing? Explain how it aids in sustainable use of biodiversity. Also, mention the different global and national level mechanisms for ensuring Access and Benefit Sharing. (250 words) 15

पहुंच और लाभ साझाकरण (एक्सेस एंड बेनिफिट शेयरिंग) क्या है? यह जैव विविधता के संधारणीय उपयोग में किस प्रकार सहायक है, स्पष्ट कीजिए। साथ ही, पहुंच और लाभ साझाकरण सुनिश्चित करने हेतु वैश्विक और राष्ट्रीय स्तर की विभिन्न प्रणालियों का उल्लेख कीजिए।

Access and Benefit sharing is the concept that ensures that benefits and use of biodiversity are made available to one and all for protection of bio-diversity and its sustainable use in socio-economic progress.

Positives of Access and Benefit sharing (ABS) :

- ① allows technology share and use for healthy maintenance of bio-diversity. services.
- ② management and protection practices can be shared for sustainable management.
- ③ allow global cooperation in environmental and bio-diversity

conservation and safe, responsible use.

④ Control and fight illegal trade in live objects.

⑤

Globally Access and Benefit Sharing concept has arisen in consonance with that of Prior Informed Consent (PIC) and safe export-import on trans-boundary movement of hazardous substances under tripartite conventions of Basel, Rotterdam and Stockholm Conventions (BRS).

Domestically India has taken laudable efforts along with global cooperation to control illegal trade (under CITES and WCCP) and sharing awarded

with knowledge on bio-diversity
across the boundaries.

India is a bi mega-biodiversity
hotspot and both require
support and techniques for
their protection as well and
use as well has enough conditions
and scientific bio-technology
research base to lend valuable
knowledge.

17. Stating the significance, discuss the challenges in achieving disaster resilience of infrastructure. Suggest some ways for mainstreaming it in the development paradigm. (250 words) 15

अवसंरचनाओं का आपदाओं के प्रति सुनम्य (रेजिलिएंट) होने के महत्व को स्पष्ट करते हुए, इससे संबंधित चुनौतियों की चर्चा कीजिए। इसे विकास प्रतिमान की मुख्यधारा में लाने हेतु कुछ उपाय सुझाइये।

National Disaster Management Policy and Action Plan derives a lot from Sendai Framework continuing from Hyogo Framework for disaster management.

Significance of Disaster Resilient Infrastructure:

- ① Reduce loss of property and lives.
- ② Easy rehabilitation post-disaster.
- ③ Preparedness pre-disaster is made more effective.
- ④ Communication lines remain functional even during disaster, critical to disaster management.
- ⑤ Avoids disaster in the first place.

Challenges in achieving such resilient systems:

- ① Require funds from the government, otherwise always lacking.
- ② Community support, contribution and preparedness in crisis and maintaining them is critical.
- ③ Focus on only creation and not maintenance reduces their functionality.
- ④ Need best technology and foreign collaboration.

Today, there is a need for sustainable and inclusive growth and our development paradigm must include disaster management as a key paradigm in manner such as :-

- ① Sharing and effective building codes and fire-safety and other mechanisms.
- ② Vigilance and heavy penalty on their poor standards.
- ③ Clear accountability mechanisms in case of delinquency.
- ④ All employees within an organisation to make aware of such systems and their use.
- ⑤ Global conferences and support from expert countries like Japan in solving problems peculiar to our context.

18. Highlighting the significance of data localization for India, discuss various challenges associated with data localization. (250 words) 15
- भारत के लिए डेटा के स्थानीयकरण के महत्व पर प्रकाश डालते हुए, डेटा के स्थानीयकरण से जुड़ी विभिन्न चुनौतियों की चर्चा कीजिए।

Recently in its draft E-commerce policy, govt. has emphasised upon data localisation in India. Also in the part RBI made data localisation mandatory for payments and settlement system and financial transactions. Companies like Amazon and FB and Walmart have raised concerns.

Significance of data localisation in India:

- ① Cyber security and robustness of cyber physical systems will improve. Reduced chances of data theft.

- ② Protection of critical private, personal data of users, heavily generated on social networking.
- ③ Protection of financial frauds and manipulation.
- ④ Protection of genuine interests of local data providers.
- ⑤ Domestic servers created and benefit to local IT companies competing against giant foreign MNCs.

Challenges associated with this:

- ① Data localisation doesn't ensure cybersecurity. Other measures are as important and critical.
- ② Reduces critical investment and shifts away companies doing business in India.
- ③ Reduces global cooperation and affects Indian image for trade

purposes.

- ④ Copy of data saved outside can still be used for all purposes of manipulation.
- ⑤ Domestic infrastructure is not enough to support localisation.

Government must work with global services, private companies both local and global and the consumers of IT services to decide upon extent of data localisation.

For India is an IT hub as both market and service provider, such policies can go a long way affecting business environment. Pragmatism must lead the way.

19. Money Laundering as a socio economic offence is a menace especially for developing countries like India. Comment. What measures have been taken at the domestic and international levels to deal with this menace?

(250 words) 15

एक सामाजिक आर्थिक अपराध के रूप में धन शोधन विशेषकर भारत जैसे विकासशील देशों के लिए एक खतरा है। टिप्पणी कीजिए। इस खतरे से निपटने हेतु घरेलू और अंतरराष्ट्रीय स्तर पर क्या उपाय किए गए हैं?

Money laundering is defined as all those means that aim to convert black money into white via various complex transactions finding loopholes in the laws of the countries.

How it affects developing countries like ours deeply :-

- ① allows corruption and proceeds of crime to flourish.
- ② hinders and prevents collection of valuable and significant revenue via tax.
- ③ Most of the times this involves criminal activities, extortion,

illegal trade and terrorism thus affecting not just economic but socio-political systems as well.

- (4) ^{Reduces} ~~Allows~~ space for sovereign governments and central banks to devise fiscal and monetary policies, because lot of economy goes under covers.

Domestic & International measures at this

① Domestic

① Prevention of Money Laundering Act, 2002 and powers to ED via this.

② Increase in scope of NIA and VAPA to include economic offences.

③ Institution of serious economic fraud off investigation officer

④ Bribe of justice & economic

offender ~~for~~ per related provision to seal their property if they do not cooperate with investigation.

⑤ FIU-ND setup under Finance Ministry
[International Efforts]

① FATF has got teeth via strict compliance.

② Cooperation with other agencies such as WFO, UN and Interpol.

③ Global Cooperation and standards to nab money laundering.

④ Base Erosion Profit Shifting Code developed at OECD.

An overall governance framework cutting across social, economic and political spheres only can help control this menace. Reduction of corruption and black-money is critical for India to grow & prosper.

20. The primary motive of terrorism differs from that of organised crime but there exists a symbiotic relationship between the two. Discuss.

(250 words) 15

आतंकवाद का प्राथमिक उद्देश्य संगठित अपराध के उद्देश्य से भिन्न होता है, किन्तु दोनों के मध्य एक सहजीवी संबंध पाया जाता है। चर्चा कीजिए।

Recently UN has for the first time released a framework on operation in counter-terrorism ^{trans nation} and UN Convention against Organised Crime (UNCTOC) already exists.

Both ^{the crimes} may be different but share a cause and effect relationship with each other even as:

- ① Proceeds of Trans-national Organised Crime often lend up with terrorists to carry out their agenda war.
- ② Terrorists provide a link, network and ideological foundation for organised crime to grow and

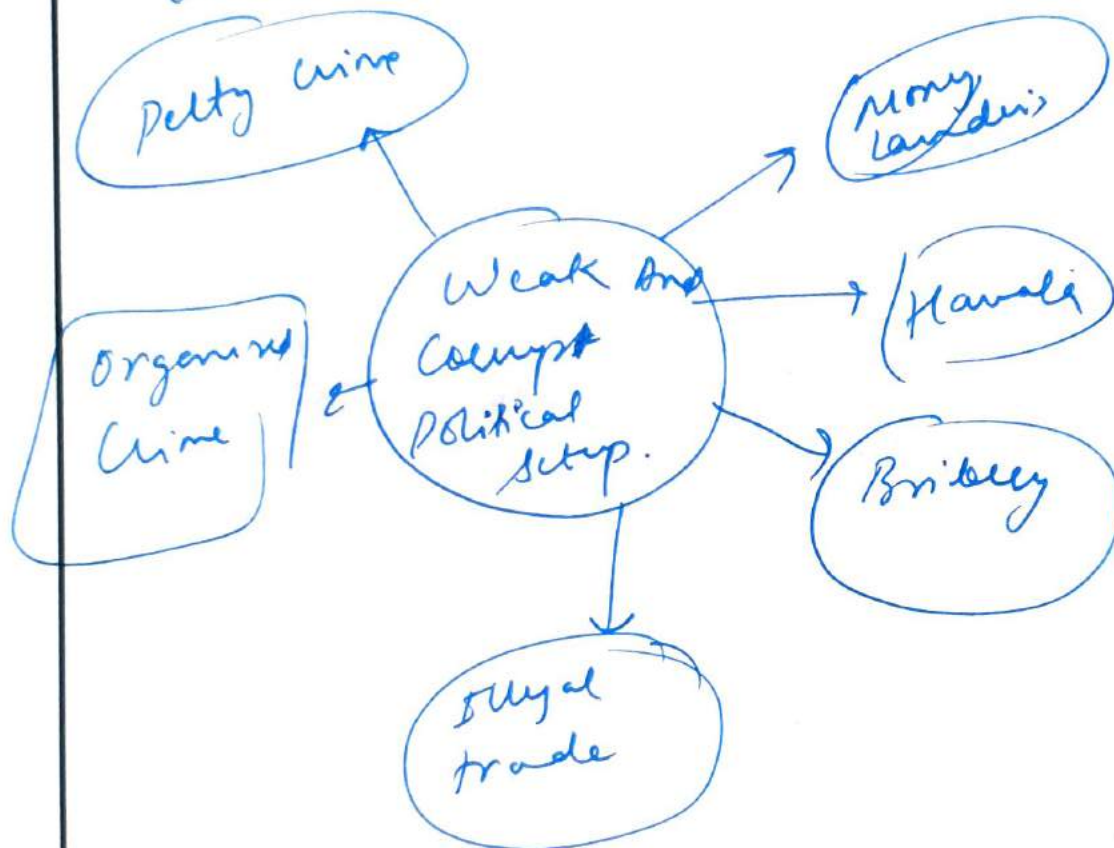
spread across countries.

- ③ Both depend upon weak governance, political systems and criminal justice system.

Some examples include:-

- ① Terrorists in middle east and drugs grown in Afghanistan and Central Asia and selling it across the world uncover to generate funds.
- ② Archaeological artefacts from Syria, Egypt and other countries sold in black market in Europe by ISIS.
- ③ Hawala and ~~arms~~ gun-trade done in major cities in India controlled by Dubai based middlemen working for ideological Islamist propaganda.
- ④ Oil and major Arms Trade

Across the countries handled by middlemen who take their cut in return for networks with corrupt politicians and bureaucrats.



Terrorism actually uses all these and strengthens all of them in exchange, to spread its wings. Global cooperation and commitment is required from top level to eradicate these ills from the root.