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GENERAL STUDIES (TEST CODE : 1244)

Name of Candidate	NAVNEET MANN		
Medium Eng./Hindi	ENG.	Registration Number	36473
Center	ORN	Date	28/08/2019

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
2	10	
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4	10	
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9	10	
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11	15	
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15	15	
16	15	
17	15	
18	15	
19	15	
20	15	

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 & 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।

16-B, 2nd Floor, Above National Trust Building, Bada Bazar Marg, Old Rajinder Nagar, Delhi-110060

Plot No. 857, 1st Floor, Banda Bahadur Marg (Opp Punjab & Sindh Bank), Dr. Mukherjee Nagar
Delhi- 110009

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.

2.

3.

4.

5.

6.

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 कीजिए।

Recently the head of the 15th Finance Commission, N.K. Singh recommended an independent body for fiscal prudence called Independent Fiscal Council (IFC).

Need of IFC

- 1) Poor fiscal management due to inaccurate budget estimates - overestimate revenue & underestimate expenditure
- 2) low tax buoyancy
- 3) extra-budgetary resources dependence
- 4) use of creative accounting to roll over fiscal debt.
- 5) lack of uniform rules for Centre & state for fiscal management
- 6) issue of fiscal populism
- 7) lack of adequate monitoring mechanism for fiscal management

Role of IFC in transparency & Accountability

- 1) provides fiscal forecasts → making government vigilant to follow the set target
- 2) assessment of budget targets will bring greater transparency in setting of budgets
- 3) will enhance government's accountability to give explanation regarding breaching fiscal targets
- 4) will aid continuity in policy of fiscal management for both centre and states
- 5) will help government incorporate best-practices of fiscal prudence across the world

Thus, formation of an IFC is a next step to follow the FRBM Act in letter & spirit. It will aid the present financial institutions like the GST Council, Finance Commission, etc.

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।

Exports are central to India's development strategy. In Niti Aayog's 'Strategy for New India @75', India needs to achieve exports worth \$800bn by 2023.

Potential for exports for employment

- 1) spurs demand for greater production, thus more jobs
- 2) exports from labour-intensive sectors like textiles, leather, footwear, etc.
- 3) exports will spur demand for private investment, create a 'virtuous cycle' with employment.

Weakening Export Competitiveness

- 1) competitiveness is reduced by high logistics costs (14% of GDP), delayed and inadequate credit, etc.

2) access of to western markets not equal to other developing nations like Vietnam as they get more concessions

3) lower quality of exports

4) effects of present phase of protectionism,
trade war eg - US withdrawing ASP for India

Steps taken

- 1) MEIS, SEIS
- 2) Trade Infrastructure for Export Scheme
- 3) Nityat Bandhu scheme
- 4) ^{Free} Trade Agreements like RCEP, etc.

Further steps Required.

- 1) transform SEZs as Employment & Economic Enclaves (Baba Kalyani Committee)
- 2) leverage role of EXIM Bank to promote export promotion at grassroots (EXIM's GRID Initiative)
- 3) greater interest subvention for labour-intensive sectors like clothing, leather, etc.
- 4) greater access to credit to exports (by reducing leverage ratio)

Thus, exports hold the key to address ratio
India's challenge of job creation. For this, a virtuous

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।

National Mineral Policy 2019 replaced the 2008 Policy on Minerals on the recommendations of the Rajeswara Rao Committee.

Features of NMP 2019

- 1) establishes mineral corridors to private sector investment
- 2) proper utilisation of district mineral fund in aid of locals
- 3) granting infrastructural status to mineral sector.
- 4) providing for the principle of inter-generational equity
- 5) creation of exclusive mining areas to promote exploration

Sustainable, ~~Res~~ Mining through NMP

- 1) the principle of inter-generational equity ensures that mining remains environmentally sustainable
- 2) serves the objective of MMOR Act by ensuring the mining doesn't affect local ecological factors

Responsible Mining & NMP

- 1) exclusive corridors & areas for mining will ~~the~~ isolate the activity from the densely populated areas
- 2) promoting private sector involvement will ensure better resource utilisation, efficiency
- 3) use of district mineral fund will ensure that locals too benefit

Thus, the National Policy on Minerals is aimed at changing the shape of mineral sector with changing times - to ensure sustainable development and sustain India as the fastest growing economy

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।

Recently, the PM-JIVAN Yojana was launched to give fillip to the Ethanol Blended Petrol Programme (EBP) and the new National Policy on Biofuels.

Features of PM-JIVAN

- 1) provides financial support to integrated ethanol fuel blending projects
- 2) provides for viability gap funding of Rs 6000 cr to specific blending projects
- 3) mandatory procurement by Oil Marketing Companies to promote the EBP programme
- 4) enhance supply chain mechanisms for biofuels like biodiesel, etc.

PM-JIVAN Yojana & Biofuel Policy's VISION

- 1) promotes reduction of greenhouse gas emissions

- 2) will help India achieve its climate-change commitments (NDCs)
- 3) aid in import dependence on crude oil
- 4) alternative for farmer incomes
- 5) reduces farm wastage

Assistance to objectives of Biofuel Policy

- 1) gives assistance in developing 1G biofuel plants based on bioethanol
- 2) promotes 2G biofuel development through viability gap funding of Rs6000 cr in next 5 years
- 3) provides backward & forward linkages for developing biodiesel plants - by an integrated supply chain mechanism
- 4) allows use of variety of farm produce include sugar-based like sugar beet, etc. for biofuel produce.

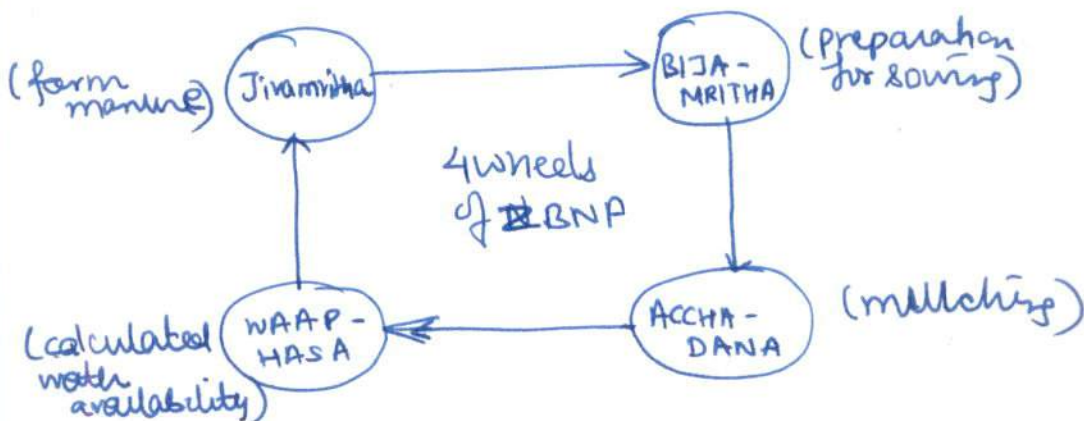
Thus, by adding to the vision of National Biofuel Policy, the PMJIVAN Yojana aids India in achieving its SDG7 of providing affordable, reliable & sustainable energy.

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।

Zero Budget Natural Farming (ZBNF) is a novel method of farming which uses only natural products for cultivation, rather than introducing external products like pesticides, chemicals, etc. It is a type of "back to the basics" farming.



Present nature of agriculture

- capital intensive but low productivity
- chemical intensive leads to increased need of water, thus salinisation and reduced soil fertility

ZBNF as an alternative

- 1) uses only natural, on-farm available inputs, thus reduces input costs
- 2) Reduced cost of farming provides an alternative to reduce farm distress
- 3) natural, chemical-free inputs require less water, thus saves water
- 4) promotes more sustainable agriculture as it adds to soil fertility
- 5) makes agriculture more climate-resilient

Issues with ZBNF

- not free from all inputs, bare minimums always required
- initially lower yields
- may not work efficiently for all areas
- doesn't address issues like agriculture marketing

Way forward : Nevertheless, ZBNF offers an alternative to contribute to sustainable agriculture and development. States should take lead from Andhra Pradesh, a pioneer in ZBNF.

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।

Oceans which observe 90% of
Earth's warming (CO_2) are becoming dumping
grounds of plastic (13mn tonnes per year).
(eg → Great Pacific Garbage Patch)

Implications of Plastic Pollution

- 1) endangers marine life due to chances of ingestion, bioaccumulation of hazardous substances
- 2) adverse effect on health - due to possibility of vector borne diseases
- 3) disturbs sensitive ecosystems like coral reefs, marshes, sea grasses, kelps, etc.
- 4) contribute to annual financial loss of \$13bn

Measures Required

- 1) ensuring coastal areas are clean, plastic-free ~~and~~ through integrated coastal zone management
(eg → FEEF's Blue Beaches Certification)
- 2) increasing public awareness about plastic pollution through campaigns like UN's Clean Seas Campaign
- 3) ~~control~~ countries should pledge to ~~make~~ ^{phase} out 'single use plastic' as pledged by India
- 4) use of technology to clean marine debris & plastic waste (eg - Present initiative to clean Great Pacific garbage patch)
- 5) promote alternative use of plastic waste
(eg - Himachal Pradesh → in road construction)
- 6) promote alternatives to plastic bags (eg reusable bags)

Thus, plastic pollution is an emerging global menace and countries should collaborate to tackle this challenge at the earliest.

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।

Bharat Stage norms (BS norms)
are aimed at regulating the emission of pollutants from combustion engines including vehicular emissions -

Evolution of BS norms

- 1) first proposed in 1996, based on 'Euro' norms
- 2) over the years BS-I, II, III norms were followed
- 3) BS-III norms were replaced by BS-IV norms in all Indian cities from 2017
- 4) Centre has decided to bypass BS-V and shift to BS-VI directly from April 2020
- 5) Delhi has become the first Indian city to adopt BS-VI norms (from 2018)

Significance

- 1) reduce pollutants : NO_x by 70%,
also reduces SO_x and suspended
particulate matter
- 2) will help India achieve its climate
change (NDCs) commitments
- 3) use of cleaner fuels will help India
reduce ~~its~~ dependence on polluting imported
crude oil
- 4) will prevent economic losses due to
poor health effects of pollution

Challenges

- 1) industry not ready - small bonnet cars
in India cannot adopt newer particulate
filter
 - 2) more time needed - average 4 years
 - 3) 'Euro' - ~~norms~~ - based norms not suitable
for Indian driving conditions
 - 4) increased cost for car buyers
 - 5) not a solution for increased vehicular
density
- Nevertheless, BSVI norms is a step

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 Holes are objects in space which have intensive gravity at the centre. They were theorised by Albert Einstein.

Features

- 1) formed after the death of a star.
- 2) have ~~infinite~~ infinitely large gravity concentrated at a unit point with infinitely small volume and high density.
- 3) nothing can escape a black hole, not even light.

Challenges in imaging

- 1) difficult to detect as it ~~absorbs~~ absorbs everything even light.

- 2) the space phenomenon lies beyond our galaxy, difficult to detect
- 3) no previous evidences, was only based on theoretical assumptions

Role of Event Horizon Telescope

- 1) became first to detect ~~even~~ a Black hole
- 2) instead of detecting the black hole, it detected the 'last photon', the illuminated ring outside it which has all types of radiation.
- 3) use of concentrated telescope placed at various continents to form a definitive, concentrated, focused image.

Thus, detection of a Black hole has opened newer frontiers for the world to explore the origin of the Earth and the force of gravity.

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।

The Arms Trade Treaty (ATT)
is a multilateral arms control treaty
which came into force in 2014.

Objectives of ATT

- 1) place export controls for member countries
- 2) prevent illegal trade, transfer
of conventional weapons
- 3) prevent use of conventional weapons
in wars or by terrorist organisations.

Challenges in its utilization

- 1) prominent members like
US, India not part of ATT

- 2) continued practice of state-sponsored terrorism by some state actors which reduces spirit of ATT
- 3) doesn't prevent the ^{possibility} ~~practice~~ of nuclear terrorism

Thus, the ATT though ~~was~~ good in spirit, needs to be reinvigorated to address the emerging global challenge of transnational terrorism.

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।

Since the time of globalisation,
a communication revolution based on ICT & Internet has aided in global prosperity.
But it has also opened newer challenges
to internal security.

Challenge through Communication Networks

- 1) use of social media for radicalisation
by terror outfits
- 2) danger of cyber warfare, espionage, substage
- 3) ~~new~~ emerging challenge of ransomware
wave by use of system vulnerabilities
& new technologies (Ransomware).

Challenge to Networks

- 1) lack of safeguards leading to malware attacks (viruses, programs, etc.)
- 2) anonymity - leading to difficult detection of attacks
- 3) threat to country's critical information infrastructure
- 4) use of import devices, flow of data across borders → misuse of data.

Steps taken

- 1) Cyber Defence Command under Defence Ministry
- 2) National Cyber Space Policy, IT Act
- 3) Draft Data Protection Law
- 4) CERT-In, CERT-NIC, ^{Cyber} Swachhata Kendras
- 5) IYC.
- 6) Cyber Surakshit Bharat initiative

Given that India will emerge as a digital economy (\$1tn by 2025) in near future, addressing network vulnerabilities is most essential today.

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।

Variable Renewable energy (VRE)

↳ a sub-type of Renewable energy which is not uninterrupted and prone to temporary ~~or~~ inaccessibility.

These include solar & wind energy and are different from fixed renewable energy like biopower & hydroenergy which provide 24x7 energy supply.

Importance of integration

1) will address supply short comings arising due to vulnerability ~~inaccess~~ (eg → solar-wind integration, solar energy when no windpower & vice versa).

- 2) reduce dependence of thermal power plants
- 3) reduce GHG emissions, promote climate change mitigation & adaptation
- 4) reduce dependency on crude oil imports.

Challenges in integration

- 1) Institutional issues of delays in land acquisition.
- 2) Lack of adequate financing as such projects can be large scaled
- 3) rising debts of DISCOMs
- 4) lack of linkages to connect to distribution & transmission networks
- 3) possibility of cost escalation

Steps Required

- 1) finalising a VRE integration policy
(eg- Proposed Draft Solar Wind Policy)
- 2) mandatory Renewable Purchase Obligations
with VRE component for DISCOMs
- 3) Human Resource Development in VRE
through Skill India Mission
- 4) access to adequate finance through
innovative finance tools like Green
Bonds, etc.
- 5) promote e-auction of VRE plant. projects

Thus, VRE projects are a step forward in ensuring sustainable access to Renewable Energy 24x7. It will benefit India to have access to affordable & ~~energy~~ reliable energy.

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?

Middle Income trap (MIT) is a phenomenon wherein a developing country moves to the middle income status but gets stuck there. First proposed by World Bank in 2007.

Phenomenona

- 1) faster economic growth pushes country to middle income status
- 2) such nation now faces competition from highly innovative developed country & low-expenditure oriented lesser developed ones
- 3) faces stagnation in growth, not able to rise to higher income state
- 4) observed in Africa (South Africa), Latin America (Brazil) & Asia (Malaysia) & etc.

Reasons

- 1) economy is not able to shift gears to more advanced growth strategy
- 2) increased income disparities, resulting in stagnancy of middle class.
- 3) recurring boom-bust cycles.

India's vulnerabilities for MIT

- 1) skewed growth of manufacturing sector, not played significant role in India's economic growth.
- 2) increase cost of skilling due to emergence of newer technologies like IoT, Artificial Intelligence.
- 3) stagnancy in Agriculture, affected by climate change
- 4) increasing economic inequalities (75% wealth with Top 10% Indians)
- 5) lower private investment, exacerbated the twin ~~to~~ Balance Sheet Problem.

Avoiding the MIT

- 1) promote greater specialisation in production (greater focus on labour-intensive sectors like textiles)
- 2) promote greater mobility of highly-skilled labour, revive professional sectors
- 3) increase output productivity (reduce ICOR value)
- 4) improve social indicators for inclusive growth (like health / Education)
- 5) boost private investment (achieve 36% by 2023) by better fiscal management - reducing crowding out effect.

Thus, though Middle Income trap remain a distinct possibility, India ~~and~~ should address emerging challenges to achieve the target of a \$5trn economy in 5 years -

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।

Monetary Policy Transmission (MPT)

Is a practice wherein the central bank's monetary policy signals are passed onto the financial sector & households,

Importance of MPT

- 1) helps RBI achieve its monetary policy targets (inflation targets)
- 2) maintains fiscal health.
- 3) brings policy certainty
- 4) maintain credibility for foreign investors
- 5) maintains lower levels of inflation.

Issues plaguing MPT in India

- 1) Slow, lagged MPT in India
- 2) Rate Hikes are transmitted immediately but rate cuts' transmission is slower

3) Causes :

- ↳ Double financial repression (due to SLR & Cash Reserve)
- ↳ Rising NPAs in Banking sector
- ↳ inefficiency in present rate determination system
- ↳ overdependence on banks (reduce their dependence on repo rate)

Steps taken by RBI

- 1) introduction of MCLR to replace Base Rate Determination of lending rate

- 2) recently it has moved to external benchmarks lending rate (eg - to repo rate)
- 3) ~~Reduce~~ Rupee - Dollar forex swap to reduce interest rate by increased rupee influx in banks
- 4) NPA reduction strategies - Prompt corrective Action, etc.
- 5) Revamp the NBFC sector by providing Partial Credit Enhancement to NP-SI-NBFCs.

Thus, NPT is necessary for RBI for ensuring effectiveness in the working of its monetary policy.

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।

Rainfed Agriculture is the practice of dependy on rain for cultivation and is marked by lack of adequate irrigation facilities.

Status in India

- ↳ > 61% cultivation is rainfed
- ↳ > 50% farmer depend on rain

Importance of rainfed agriculture

- ↳ contributes 40% rice cultivation in India.
- ↳ 88% of pulses
- ↳ > 50% cattle livestock.

Constraints faced

- 1) deficiencies in government policies
 - ↳ focus on HYV seeds - water intensive
 - ↳ lack of adequate focus on rainfed areas
 - ↳ ~~poor~~ ~~area~~
- 2) poor infrastructural support
- 3) greater, recurrent vagaries of nature like droughts
- 4) unimportant, ~~low~~ profit generating cash crops like sugarcane, rice, etc. not suitable
- 5) lower productivity as compared to irrigated areas
- 6) increased farmer indebtedness in such regions

Steps taken

- 1) PM Kisan Sinchase Yojana.
- 2) National Mission on Sustainable Agriculture, etc.

Agronomic Practices Required

- 1) promotion of agro-climate zones through GIS mapping
- 2) promotion of ~~micro~~ micro irrigation facilities, drip irrigation.
- 3) promote soil health management through mulching & use of geo-textiles
- 4) use of ICT/ Apps to give weather forecast, promote farm producer about sustainable agriculture practices.
- 5) promotion of allied sectors (livestock) as alternative source of income

Thus, since rainfed agriculture contributes significant proportion to India's food security, promoting sustainable agriculture in such regions is most necessary.

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?

The urea sector has emerged as an significant linkage in fertiliser input sector since the Green Revolution.

Steps taken

- 1) urea based subsidy scheme
- 2) use of Neem-coated urea
 - ↳ for soil health
 - ↳ prevent diversion of urea produce.

Persisting Problems

- 1) continued leakage in urea sector.
- 2) poor targeting, diversion to richer farmers

- 3) unsustainable & over use of urea in farming → reduce soil fertility
- 4) issues of urea accessibility to small, marginal farmers

Reforms Required

- 1) use of DBT in fertilizer subsidy
- 2) end to end computerisation of urea sector value chain
- 3) link urea scheme to the Potash-Potassium subsidy scheme
- 4) create monitoring mechanisms in state agricultural departments to prevent leakages

Thus, ensuring the functioning of a transparent water sector is essential for ensuring sustainable agriculture.

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 & Benefit Sharing (ABS)

is a practice of biodiversity ~~conservation~~ conservation which ensures that the benefits of ~~local~~ traditional biodiversity knowledge benefits not only the corporate houses but also the owners of such knowledge.

ABS & sustainable biodiversity use

- 1) ensures that bearers of traditional knowledge get benefit & enjoy control over their knowledge
- 2) prevents misuse / unsustainable use of biodiversity for commercial purposes.

3) prevent unauthorised access & use of biodiversity

Global mechanisms for ABS

- 1) Convention on Bio Diversity (CBD) which promotes sustainable use of biodiversity resources through ABS
- 2) Nagoya Protocol - sets Aichi Targets for ABS
- 3) The New Deal for Nature Initiative at the recent CBD Summit - El Sheikh
Inference : promotes conserving cultural biodiverse heritage

National Mechanisms for ABS

- 1) Biodiversity Act : provides for a three tier mechanism.

↳ National Biodiversity Authority

- prevents foreign use of IPRs of biodiversity

↳ State Biodiversity Authority

- regulates use of biodiversity for commercial purpose.

↳ Biodiversity Management Committees at local level

- maintain a biodiversity Register
- ensure ABS principle at grassroots level

2) National Reports for maintaining compliance to Aichi targets.

3) Geographical Indication Act

Thus, biodiversity conservation along with sustainable use which is beneficial for all forms the foundation of the ABS mechanism.

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।

Disaster Resilience refers to
in Infrastructure

the practice of making infrastructure which ^{has} the ability to withstand disaster and hazards.

Significance

- 1) necessary for disaster preparedness & mitigation
- 2) reduces human, property & economic losses
- 3) promote development that is sustainable

Challenges

- 1) lack of adequate finany for better construction.

- 2) inadequate monitoring of construction standards
- 3) proliferation of slums and unauthorised colonies
- 4) overpopulated cities due to migration
- 5) inadequate capacities of local bodies to provide capabilities for disaster resilience
- 6) lack of awareness about disaster resilience.

Suggested ways

- 1) creation of an updated code for infrastructure construction & monitoring & compliance mechanisms
- 2) rehabilitation for slum dwellers

- 3) use of CSR to finance disaster resilient infrastructure
- 4) seismicity mapping & vulnerability analysis before infrastructure development

India has emerged at the forefront of disaster resilience with the National Disaster Management Plan and the formation of the Coalition of Disaster Resilience. It should continue its efforts to ~~use~~ keep pace with the Sendai Framework.

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।

Data localisation is a practice to prevent the flow of data outside national borders, ensuring that data is processed and stored within the country.

Recent steps by India

- 1) RBI data localisation norms for international payment operators
- 2) Srikrishna report
- 3) National digital communication policy (Data as 'national good')
- 4) Data Information Security for Health Records.

Significance of data localisation

- 1) provides economic growth potential

- as data is the new oil
- India can emerge as the one of the largest data centre markets
- utilise data for disruptive technologies like Big Data, IoT, etc.

2) increase tax revenue -

as most global players evaded tax liabilities due to absence of local base

3) promotes national security - access to information for law enforcement agencies

4) maintain data privacy, prevents Data Colonisation.

Challenges

1) will disrupts benefits of free data flow to the IT-BPM sector of India.

2) does not address the possibility of erosion of privacy due to state surveillance.

- 3) lack of adequate cyber security standards increase vulnerabilities for data centres
- 4) Law & order may not fully benefit as they will not have access to encrypted data.
- 5) will further promote protectionist trends and lead to other countries to go for ~~the~~ similar policies

Way forward

- 1) Data ~~retention~~ localisation is essential for India to emerge as a knowledge economy.
- 2) for this, India must enhance its standards of cyber security and data protection and privacy.
- 3) India should cooperate with other countries to provide for cross border information sharing for investigative purposes (eg USA's CLOUD Act).

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 the practice of giving illegitimate money the facade of having originated from lawful sources.

Money laundry as an economic offence

- 1) contributes to macroeconomic instability due to frequent foreign capital outflows
- 2) reduces government's control over its monetary policy
- 3) reduces ~~to~~ tax revenue & tax base
- 4) leads to diversion of expenditure to non productive sectors (real estate / jewellery etc.)

As a social offence

- 1) leads to diversion of resources away from the poorer

- 2) leads to welfare losses due to reduced fiscal space for government
- 3) exacerbate wealth inequalities
- 4) fuels activities like terrorism & insurgency
leading to social turmoil and violence.

Domestic Measures

1) Institutional

- RBI, SEBI → KYC norms
- ED
- FIU-IND
- Terror finance cell in NIA

2) Legal

- PMLA - Benami Transaction Act
- Fugitive Economic Offenders Act
- Black Money Act

3) Administrative / Policy measures

- Demonetisation
- promotion of digital/cashless economy
- Project Insight
- PM Garib Kalyan Yojana, Income Declaration Scheme
- Reviving DTAA with Singapore, Cyprus, etc.

International Measure

- 1) G20's Base Erosion & Profit Shifting (BEPS) norms
- 2) UN Conventions against Corruption, Transnational organised crime etc.
- 3) OECD's Automatic Exchange of Information (AEOI) mechanism
- 4) FATF
- 5) US' FATCA law

Way forward

- 1) India should establish a Trade Transparency Unit
 - 2) Implement FATF recommendations:
 - ↳ Storage of transaction information for 5 years
 - ↳ nodal agency for Anti Money Laundering Policy.
 - 3) Greater coordination among agencies
- Thus, money laundering needs to be tackled on a war footing, given that it is an emerging global challenge.

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।

Terrorism is a practice of use of violence for political motive. Organised crime is an unlawful activity by a syndicate for pecuniary and other benefits.

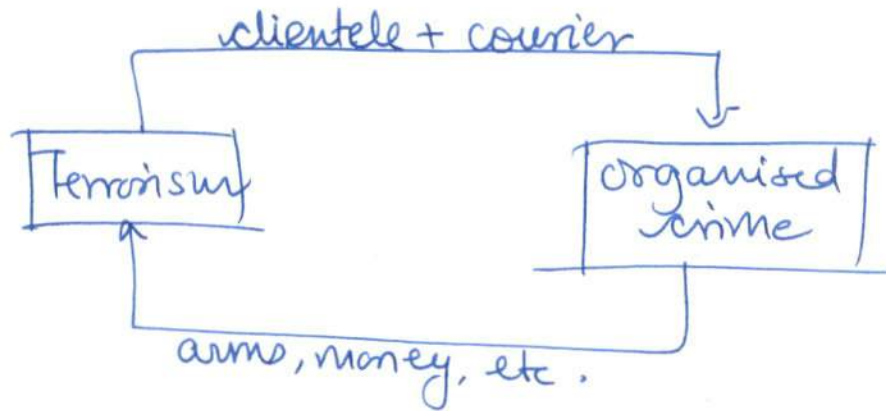
Terrorism

- 1) aimed at achieving political objectives - displacing the government in power
- 2) works against the prevalent ruler

Organised crime

- 1) has primarily economic motive - prefers a parallel government
- 2) can/may work in collaboration with the ruler

Symbiotic Relationship



- 1) Both operate in similar conditions of poor law & order, weak governmental control and weak border security.
- 2) Linkages between the two:
 - ↳ human trafficking ↳ drug trafficking
 - ↳ use of counterfeit currency ↳ smuggling
- 3) North East Insurgency : Insurgent groups ~~also~~ use channels of organised crime like extortion, drug trafficking, smuggling, black marketing, etc.

4) Jammu & Kashmir: unrest has been promoted by use of hawla networks & drug trafficking networks.

Way forward

- 1) transnational & regional cooperation
↳ establish SAARC Regional Centre against Transnational organised crime.
- 2) establish a National Coordination Agency for organised crime & terrorism
- 3) increased sensitization of police
- 4) better border management by use of technology (eg CIBNS, BOLD-IT, etc)
- 5) promote stronger intelligence networks.

Thus, though different terrorism & organised crime serve & aid each other. Thus, a coordinated response is required to tackle the two.