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Name of Candidate : RAHUL HIJAM

NEXT IAS Roll No.: GSPM23B13025 **Date of Examination :** 15-08-23

Exam Centre : Old Rajinder Nagar ☐ Bhopal ☐ Online ☑

Test Code : TC051 **Program :** SLT ☐ SLT+ ☑

MAIN TEST SERIES 2023
(SECTIONAL TEST-5)

GENERAL INSTRUCTIONS

This Question-cum Answer (QCA) Booklet contains 56 pages. Immediately on receipt of the booklet, please check that this QCA booklet does not have any misprint or torn or missing pages or items, etc. If so, get it replaced by a fresh QCA booklet.

Candidates must read the instructions on this page and the following pages carefully before attempting the paper.

Candidates should attempt the questions strictly in accordance with the instructions specified in the question paper and in the space prescribed under each question in the booklet. Any answer written outside the space allotted may not be given credit.

Question paper will be provided separately and can be taken by the candidates after conclusion of the exam.

. . . . . .

SUBJECT/PAPER
GENERAL STUDIES

Invigilator's Sign. : . . . . . .

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(For filling by Examiners only)

Evaluator Code :

Q.No	Pg No.	Maximum Marks	Marks	Total
1	1			
2	3			
3	5			
4	7			
5	9			
6	11			
7	13			
8	15			
9	17			
10	19			
11	21			
12	24			
13	27			
14	30			
15	33			
16	36			
17	39			
18	42			
19	45			
20	48			
Grand Total				

Signature

MACRO COMMENTS

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प्रश्न संख्या (Question No.)

इस भाग में कुछ न लिखें (Don't write anything in this part)

Q1. What do you understand by windfall tax? Do you think windfall tax can effectively redistribute wealth and promote greater economic equality?

→ Tax imposed on unprecedented windfall profit by a company due to uncertain events on external factor is called windfall tax.

Recently Indian government imposes windfall tax on crude oil export. Due to the ongoing war of Russia and Ukraine, a there was huge rise in demand for crude oil & which lead to ~~stop~~ higher profit in export.

Challenges of such practices

(1) It can lead to shortage of resources in the domestic country

(2) It can lead to inflationary tendency.

(3) It can hamper the economic activity and resource security of the country.

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Benefits of windfall tax

(1) The revenue generated can be used in development of other resources or infrastructure.

(2) The profit earned are not through investment or business expansion. Thus the tax can help reduce income gap.

(3) The revenue can be used for welfare schemes and fiscal consolidation.

Thus windfall tax acts as a deterrent to widening of income gap and can help in making domestic resource available at the time of needs.

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प्रश्न संख्या (Question No.)

इस भाग में कुछ न लिखें (Don't write anything in this part)

Q2. Elaborate on the difference between capital Account and current Account as components of Balance of Payments (BOP). Suggest a few measures to balance the BOP deficit of India.

→ Balance of payments is a the records of all transactions between a country and external sector. It has two components:
① Current Account ② Capital Account.

Difference between capital and current amount.

Current Amount	Capital Account
① It consists of exports, imports, remittances and net income from abroad.	① It consists of FDI, FII, Borrowings and foreign Exchange Reserves.
② It is mainly short-term, i.e. it affects the asset or liability for short term.	② It is mainly long term i.e it affects the asset or liability in long term.

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Current Account	Capital Account
③ Export or import can be in form of goods or services.	③ FDI leads to ownership of assets by foreign country while FII leads to investment only with motive of gaining profit.

Measures to balance BoP deficit

BoP deficit is when outflow is greater than inflow of assets. To reduce it;

① Increase export : Policies to reduce cost of production like ease of doing business and logistics policy.

② Reduce import : Initiatives like Make in India to become self reliant.

③ Attract FDI : PLI schemes and allowing large share of FDI in different sectors. Eg:- semiconductor sector.

Thus, to reduce BoP deficit and for economy to grow, structural and institutional reforms are required.

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प्रश्न संख्या (Question No.)

इस भाग में कुछ न लिखें (Don't write anything in this part)

Q3. Discuss the perceived success and challenges of implementing inflation targeting under the new Monetary Policy ~~Regime~~ Committee (MPC) regime.

→ Inflation targetting was introduced in India in 2016. Government has fixed the targeted inflation at 4 ± 2 %.

Monetary Policy committee was formed to take decisions on the monetary indicators. It consisted of 6 members (3 from RBI and 3 appointed by Government).

Perceived success of Inflation Targetting

① It helped RBI focus on a single variable i.e inflation. Thus it leads to more stable economy.

② It reduces speculative tendency.

③ It allows central bank to use both money supply and interest rate as tool to control inflation.

④ It gives RBI more policy options like Dovish Policy, Neutral or Hawkish Policy.

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Challenges

① It has limited scope in controlling inflation if it is from supply side.
Eg:- Recent inflation due to supply chain disruption.

② It compromises RBI's power to manage foreign Exchange.

③ It dilutes RBI's capability to regulate banking system due to focus on inflation targeting.

Some of recent steps by RBI to control inflation

① Introduction of variable reverse repo operation to control liquidity.
② Introduction of Standard Deposit facility
③ Increase in CRR @ to 4.5%
④ Increase in Repo Rate to 6.5%.

The resilient inflation targeting helps India to be relative more stable in the current economic slowdown with unprecedented events like the Russia Ukraine conflict, interest rate manipulation etc.

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Q4. The logistics sector is one of the important components of the growth of the manufacturing industry. Discuss. Also mention various components of the recently announced National Logistics Policy 2022.

→ Logistic sector ~~involved~~ involves acquisition, storage and delivery of resources in the economy. It plays a huge role in boosting the structural growth and interlinking different sector.

Role of Logistic Sector in Growth of Manufacturing Industry:

(1) It helps in ease of doing business with proper backward and forward linkage.

(2) Proper connections help reduced cost of transportation,

(3) Proper facility of grading, measurement, storage helps in increasing competition

(4) Robust supply chain management can help in efficiency and enhance productivity.

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The recently announced National Logistic Policy 2022 focuses on process re engineering, digitisation and multimodal transports.

It was brought in to reduce the logistical cost and improve competitiveness of domestic ~~market~~ goods in international market.

Goals.

- cut logistics cost to be near global standard from 14-18% to around 8%
- Data driven DSS for efficient logistic system.
- Minimise logistical ~~its~~ issues and boost exports.

This will be achieved through:

- Digital integration System.
- Ease of logistic service.
- Unified logistic Interface Platform.
- Comprehensive Logistic Action Plan

Thus, Understanding its importance, the Government is supporting the logistic sector with policies like GATI-SHAKTI scheme, Bharatmala, Sagarmala, Multimodal Logistic Parks etc.

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Q5. Assess the potential of millet production in promoting sustainable agriculture and improving food security in India.

To spread the awareness of importance of millet, the UN announced 2023 as International Year of Millets as proposed by India.

India is one of the largest producers of millets with jowar, bajra and ragi as ~~most product~~ highest producing millets respectively. Various regions of India are endowed with various types of millets with western part being the dominant.

Eg:- Rajasthan, UP, Gujarat, Maharashtra, Karnataka, Telangana etc.



Benefits of Millets

① Nutrition: Millets are rich in vitamins and minerals like ragi has highest amount of calcium and iron.

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(2) It is rich in antioxidant.

(3) It is economically viable i.e. it requires less costly input.

(4) It can grow in drought ~~host~~ prone region.

Various Potential of Millets in India.

→ It can help in reducing the malnutrition problem.
The government has incorporate millets in POSHAN Abhiyan.

→ It can help in food security as it is resilient crop.

→ It can help in removing anaemia and ~~boost~~ boost the initiative of Anaemia Mukt Bharat.

→ It can improve wage and income of farmers and helps improve quality of life.

→ It does not need excess water and fertilisers. Thus it is environmentally friendly.

Thus, recognising the importance of millets, it was renamed as multi cereals in 2018.

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Q6 Jal Jeevan Mission has the potential to end the regional disparity in the availability and accessibility of drinking water. Highlighting the significance of the mission, Discuss the underlying impediments in achieving the desired objectives.

→ Jal Jeevan Mission is a flagship scheme under Ministry of Jal Shakti to ensure piped and potable water to every household by 2024.

Potential of Jal Jeevan Mission:

→ Ensuring safe drinking water, thus preventing many water related disease

→ Increase in work force: Women can save time from fetching water and involved in work to earn more wage

→ Relief in rainfed region: Drought prone areas which has water scarcity will be relieved and further productive work can be done

→ More crop production and crop protection leading to increase in

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farmer's income.

Thus, it has potential to end regional disparity in availability and accessibility of water.

However, there are certain challenges.

① Lack of infrastructure: The rate of penetration is slow with only few states achieved 100% ~~tapp~~ tap-water availability like Haryana and Gujarat.

② Delay in coordination of centre and state & thus making fund transfer delayed.

③ Need for improving water contamination which poses obstacle in ensuring safe drinking water.

Therefore to ensure the goal of Har Ghar Jal i.e. 55 litre water per person per day, there is need to strengthened skilled workforce, monitor water quality and accelerate the implementation.

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प्रश्न संख्या (Question No.)

इस भाग में कुछ न लिखें (Don't write anything in this part)

Q7. What is India's stand on the New Agreement on fisheries subsidies under WTO? How is the Fisheries Sector significant for India? Enumerate the steps taken by Government to develop this sector.

→ India is 2nd largest aquaculture producing nation and 3rd largest fish producing nation.

The New Agreement on fisheries subsidies under WTO prohibits subsidies on illegal, unreported and unregulated fishing. It also prohibits subsidies for overfishing.

India's stand on the New Agreement

- India is one of the lowest fisheries subsidiser inspite of large population
- Members who had large subsidies and done large scale industrial fishing must have more obligation under Polluter Pay Principle and common but Differentiated Responsibilities.
- No ban of subsidy for small and ~~hand~~ traditional fishery practices.

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Significance of Fishery sector for India-

- Provides livelihood to millions of fisher folk.
- The ~~Blue~~ Sector provides an alternative to move away from agriculture.
- It provides 1.07% of India's GDP.

Steps taken by Government

- Neel Kranti : Blue Revolution has demonstrated the importance of the sector with objective ~~two~~ to increase the efficiency.
- PM Matsya Sampada Yojana : to promote socio-economic welfare by providing safety kit, replacement boats and nets etc.
- Sagar Parikrama aims the coastal belt demonstrating solidarity with fisher folk and resolve issues faced by them.
- Kisan Credit Card and Fisheries and Aquaculture ~~Investment~~ Infrastructure Development Fund.

Thus, fishery sector played an important role in Indian economy for the livelihood of millions of people and provides a boost to GDP.

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प्रश्न संख्या (Question No.)

इस भाग में कुछ न लिखें (Don't write anything in this part)

Q8. Analyse the systematic and institutional constraints that continue to hinder land reform efforts in India and propose pragmatic solutions to ensure equitable distribution of land.

→ Land Reforms in India mainly constitute of

① Abolition of intermediaries
② Tenancy Reforms
③ Land ceiling
④ Consolidation of Land.

Systematic and Institutional constraints

① Time taking process : It is due to lack of coordination between centre and states.

② Lack of proper records leads to inefficient decision making and lack of implementation of reforms, and rise in Benami transaction.

③ Lack of clear definitions leads to various loopholes through which many landlords evade the reforms.

④ Lack of Awareness and capacity constraints leads to hindrance in the process.

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Solutions to ensure equitable distribution of land.

→ Proper definition of cultivable land, personal cultivation etc so that it does not create any loopholes.

→ Enhancing the skills and capacity of workforce to implement reforms efficiently.

→ Proper coordination between States and centre and state for smooth process of reform.

→ Proper records of lands through digitisation and use of technology.

→ Building a model land reform structure to ensure various constraints are removed.

Thus a proper coordination among different organisations, use of new technologies, spreading awareness and proper monitoring can lead to equitable distribution of land and reduce exploitation.

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प्रश्न संख्या (Question No.)

इस भाग में कुछ न लिखें (Don't write anything in this part)

Q9. "Green Hydrogen can be the silver bullet in our quest to tackle climate change and pollution". Critically analyse the statement in light of India's National Green Hydrogen Mission.

→ The the Budget of 2023, one of the Saptarishi is Green Growth and one of its aspects focus on Green Hydrogen Mission. Of the The Government outlay a budget of ₹ 19,744 crore the Mission.

Objective of the Mission

- 5 Million metric tonne of Green Hydrogen per annum
- Renewable Energy of 125 GW
- Cummulative reduction in fossil fuel import
- Abatement of nearly 50 Million metric tonne of annual greenhouse gas emission
- over ₹ 8 lakh crore investment and 6 lakh jobs.

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Benefits.

- Decarbonisation of various sectors
- Reduction in dependence of ~~on~~ import of fossil fuel
- creation of employment opportunities
- indigenous manufacturing capabilities
- development of cutting edge technology.

However, there are certain **Challenges**

→ Capacity of electrolysers to achieve the goal must be 60–100 GW/year.
Current global capacity → 6–8 GW/year.

→ Excess water requirement → to produce 1 kg of H_2, 90 litre of water required.

→ Cost → 1 kg of H_2 will cost around ₹300–400

→ Storage and transportation constraints.

The Mission can act as a silver bullet to tackle climate change however super development in R&D and geopolitical arrangement is needed to ensure India to create Global Hydrogen Hubs.

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प्रश्न संख्या (Question No.)

इस भाग में कुछ न लिखें (Don't write anything in this part)

Q10. Explain the purpose of the "Mangrove Alliance for Climate" launched at the COP27 UN Climate Change Conference in Egypt in November 2022. Elaborate on the importance of mangroves in maintaining the coastal ecology of tropical nations.

→ Mangrove Alliance for Climate was launched at COP27 of United Nation Climate change Conference led by Indonesia and UAE. with India, SriLanka, Japan, Australia and Spain ~~and us~~ as members.

Objective → to educate and spread awareness of the importance of Mangrove ecosystem in curbing global warming.

Working.

- MAC would work on a voluntary basis. This implies there are no checks and balance
- Parties will decide their own commitments and deadlines
- They will share expertise and support each other.

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India introduced scheme like MISHTI in this year budget to scale up, accelerate conservation and restoration of mangrove ecosystem.

Importance of Mangroves

1. It provides basic food chain resources
2. It provides physical habitat and nursery resources for marine organisms.
3. It enriches the biodiversity and helps in various nutrient cycle in the coastal ecosystem.
4. Acts as a storm buffer by reducing wind and wave action.

Challenges

- Commercialisation of Coastal Areas
- Climate change
- Shrimp Farms
- Excessive Human Intervention.

Thus acknowledging the importance and various benefits, proper measures such as recognising the ecosystem as biosphere reserve is required to conserve them.

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Q11

Electricity Amendment Bill 2022 brings several advantages for consumers, DISCOMs as well as the environment. Also list out its shortcomings and suggests some measures to overcome them.

→ Electricity Amendment Bill 2022 was brought to give multiple players open access to distribution network of power supplies and for consumer to choose any provider.

It brings advantages to consumer, DISCOMs as well as environment.

Advantage to consumers,

- → minimum tariff ceilings to avoid predatory pricing
- → Able to choose own power supplier
- → Increase in quality of service delivery.

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Advantage to DISCOMS

- It removes restriction of Electricity Act 2003 to supply electricity through own network
- If regulator failed to decide grant within 90 days, the application is deemed to have been approved
- Cost sharing between all Discoms.

Advantage to Environment

- Renewal Purchase oblisation by SERCS
- Base level RPO below which cannot be purchased.
- Penalty for failure to purchase RPO.

Shortcomings

- CERC is given more power and authority to grant license.
- Centre has more power to give direction to SERCs.
- Selection committee will have nominee of central government instead of Chairman CERC
- Same Buyer and Provider Eg:- Railways.

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Measures to overcome:

- Since Electricity is in concurrent list, Both centre and state must have equal powers
- Proper regulation of Private Players
- Implementation of DBT in electric sector too for better efficiency
- Referal to Standing Committee

The bill is a novel step towards better regulation of electricity as there is huge cost in this sector and can lead to Reducing loss due to inefficiency.

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प्रश्न संख्या (Question No.)

इस भाग में कुछ न लिखें (Don't write anything in this part)

Q12. Security and Exchange Board of India (SEBI) Plays an important role in the regulation of the sharemarket and safeguarding the interests of investors. In light of the given statement, highlight the challenges faced by the SEBI and suggest reforms in this regard.

→ The Security and Exchange Board Act 1992 establishes SEBI as an statutory body for protecting the interest of investors and regulating ~~security in~~ share market, thus promoting growth & development.

Role of SEBI

- Protecting function
  - prohibits insider trading
  - check price rigging
  - promoting fair practices
  - financial education provide
- Regulatory function
  - Defining rules and regulations and forming guidelines.
  - Regulating process of taking over of a company
  - audit and inquiries.
- Development function like training of intermediaries and introduction of electronic trading.

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प्रश्न संख्या (Question No.)

इस भाग में कुछ न लिखें (Don't write anything in this part)

Challenges of SEBI

- Insider trading, despite regulatory provisions.
- Cyber crime such as cyber attack on NSE.
- Cooperation : Delays in cooperation with other regulators thus creating regulatory gap.
- Legal Problems → Legal Delays slows down its enforcement.
  Eg:- Sahara Group case
- Limited Resource creating delays in performing its functions.

Reform Needed

- Regulatory framework to increase its efficiency and implement the guidelines
- Use of technology to prevent cyber threats and increase handling capacity
- Upskilling human resource to perform delicate works and be more productive

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- System and rules to increase coordination among regulators
- Increase in funding to be able to perform its functions effectively.

Thus SEBI plays a major role as quasi legislative and quasi judiciary in order to secure share market and protect the interest of investors.

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Q13 International trade is centred on the dominant currency paradigm (DCM). Critically analyse the importance of hard currency in International trade and Discuss the potential of rupee acceptance in global trade as an alternative to dollar imperialism.

→ Hard Currency refers to money that is issued by a nation which is politically and ~~econ~~ economically stable. Eg:- US dollar.

Dominant Currency Paradigm refers to use of hard currency majorly in international trade. Under this, most countries preferred hard currency because of stability and acceptance by international institutes like IMF.

Importance of Hard Currency

- Stable exchange rate which reduces shocks and speculation
- Credibility with strong backing by gold
- acceptance by various organisation
- power to impose sanction and use as tool Eg:- US sanctioning Russia.

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Potential for rupee acceptance in Global Trade

→ With using of dollar as tool like imposing sanction, countries wanted to trade in local currencies.

→ Recent transaction between Russia and India in local currency through NOSTRO and VOSTRO account.

→ Recent agreement between UAE and India for transaction in local currency.

→ Increasing importance of India as voice of Global South.

→ Robust currency which was seen in pandemic with least depreciation.

→ More globally accepted by many other countries like Sri Lanka and as an alternative to US dollar.

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प्रश्न संख्या (Question No.)

इस भाग में कुछ न लिखें (Don't write anything in this part)

Thus with the rise in bilateral and regional pacts and increasing currency swaps, Indian rupee has potential as an alternative to dollar imperialism.

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Q14 Demographic Dividend does not ensure growth, it only generates potential. Discuss the steps taken by the government to take advantage of the opportunities presented by the demographic transition.

→ Demographic Dividend refers to the bulge in working population of age between 14 to 65 in the demographic transition of an economy.

It generates Potential

- Rise in working age population increases labour force
- Rise in labor force can enhance production and thus growth
- Low depending population contributes more to the growth.

However it does not ensure growth

- Lack of education and training can become hindrance.
- Lack of infrastructure can cause disguised employment.
- Deficient R&D and lack of innovation will reduce job opportunity thus reducing employment opportunities.

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Steps taken by government to grab the opportunity.

(1) PM SHRI : strengthening the existing schools and provision of more schools to provide high quality education in a joyful, inclusive environment.

(2) Pradhan Mantri Kaushal Vikas Yojana providing training to experienced Indian youth to bridge the gap between their skill and industry requirement.

(3) PM VIKAS → improving skills of artisans, ensuring easy credit and help them in brand promotion.

(4) Ayushman Bharat and ICDS programme to ensure health and nutritional improvement.

(5) Smart City Mission and AMRUT for well planned urbanisation and well built infrastructure.

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India is on path of demographic dividend and to grab the opportunities there is need for upskilling and ~~contain~~ enhancing the capacity of youth and implement-structural reforms to achieve growth.

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प्रश्न संख्या (Question No.)

इस भाग में कुछ न लिखें (Don't write anything in this part)

Q5. Despite being a major contributor to the Indian Economy, the agriculture ~~played~~ sector is plagued by several constraints that impede its growth and development. Discuss the role of technology in overcoming these constraints.

→ India is a agricultural dominant economy with around 44% of workforce in the sector. ~~However~~ It contributes to 17% of GDP.

However, it is plagued by several constraints.

(1) Overdependence on rain. : It led to decline in agricultural output.

(2) Poverty and illiteracy of farmers lead to prevention of large scale capital investment and scientific method of cultivation.

(3) Inadequate irrigation facility

(4) Improper use of fertilizers leading to degradation of soil health and less productivity.

(5) Lack of proper market access

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(5) Lack of Mechanisation : Most of agricultural operations in larger parts are carried on by human hands using simple & conventional tools.

Role of technology in overcoming these constraints.

(1) Improved crop yield : Using techniques such as precision farming using sensors, drones, GPS etc

(2) Enhancing crop quality : This can be through techniques such as genetic engineering : Eg :- GM Rice, Bt cotton.

(3) Sustainable farming practices : Using of Soil Health Card for proper use of fertilizer, choice of crops and implementing sprinkler irrigation and drip irrigation

(4) Smart supply chain management : Using platform like eNAM to connect farmers with buyers.

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However there are challenges in deploying technology such as:

(1) Education and Training: Lack of knowledge and skill

(2) Economic and Policy issue like access to credit, penetration of schemes.

(3) Rigidity in social perception leading to difficulty in change.

Thus, to ensure the benefit of technology is reached, government must adopt policies like Paramparagat Krishi Vikas Yojana and facilities like Krishi Rail and Krishi Drones, to ensure proper use of technology.

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Q6 Evaluate the impact of irrigation on the environment and natural resources and suggest measures to ensure the sustainability and equity of irrigation practices in agriculture.

→ Irrigation is the process of applying water to the crops artificially to fulfill their water needs. In India, 45% of the net sown area is irrigated.

Impact of Irrigation:

Irrigation has contributed significantly to poverty alleviation, food security and improving quality of life. However, it has lead to negative impacts on environment and natural resources.

(1) Irrigation subsidy: This lead to uncontrolled use of irrigation leading to decrease ground water table.

(2) Irrigation also lead to water logging and salinization

(3) It can create water borne and vector related diseases like Malaria.

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4) Reducing river flow changes flood plain and also affects downstream regions.

5) Erosion of top soil thus reducing fertility

Measures to ensure sustainability and equity of irrigation practice.

(1) Change in style of irrigation

Using drip irrigation and sprinkler irrigation can lead to lesser wastage of water.

(2) Developing aquaculture in irrigation channel.

(3) Awarness for water conservation.

(4) Development of small check dams and rainwater harvesting facilities.

(5) Soil Health card to ensure scientific way of choosing crops which can ensure optimal amount of water to be used.

(6) Schemes like Pradhan Mantri Krishi Sinchai Yojana.

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Thus, irrigation in sustainable way can help achieve food security and improve quality of life however without proper management it can hamper environment and thus accelerating climate change.

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Q17. Genome editing holds immense potential for crop improvement, but it also raises ethical and safety concerns. How far do the new guidelines for the safety assessment of genome edited plants in India ensure the safety of genetically modified crops?

→ Genome editing of crops can help in productivity, pest resistant and nutrient fortification. However, the recent approval of GM Mustard by GEAC for environmental release raises questions about ethical and safety concerns.

Safety and Ethical Concerns

① Health concern: Edible crop may have toxic genes and the health impacts of GMOs are not properly studied.

② Impact on Biodiversity: It can cause threat to local and endemic crops.

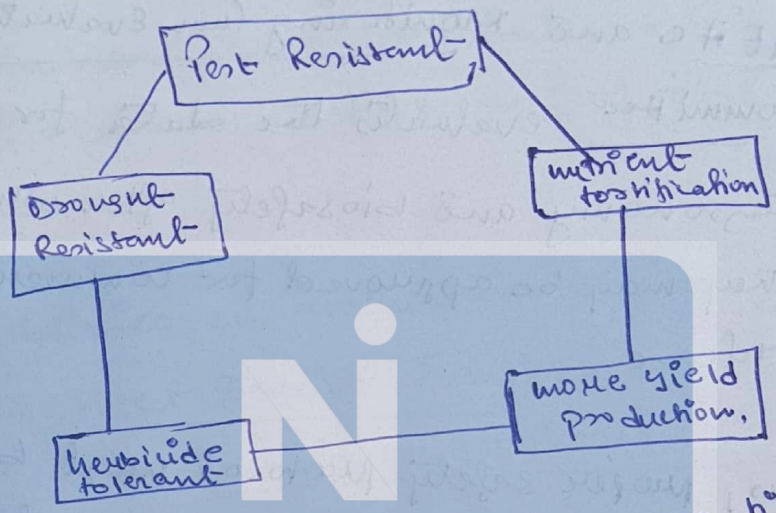
③ Issue of Biopiracy: Recent case of Pepsi V/s Gujarat Potato farmers is an example of how farmers can fall victim to exploitation.

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④ Poor infrastructure for mandatory tri. labelling and processing of edible crop.

Potential of GM Crops.



To reap the benefits and at the same time ensure safety, **New guidelines for safety** are as follows.

- First the Breed company approaches **Institutional Biosafety Committee (IBSC)** with data generated from lab.
- IBSC forward the matter to **Review Committee on Genetic Modification (RCGM)**
- RCGM asked for more data through close trials like green houses.
- If they are satisfied they reach **GEAC** which may grant for environmental trials.

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- But the developer has to obtain NOC from the state, which have a right to refuse
- After trials for atleast 2 years, the GEAC and Monitoring cum Evaluation committee evaluates the data for agronomy and biosafety after which they may be approved for commercial release.

Thus, proper safety protocol must be ensured with effective assessment so that various unknown casualties may be prevented. The Ministry of Environment approved SDN-1 and SDN-2 of Genetically Modified crop but does not allow SDN-3 type. Keeping in mind safety and conservation of ecosystem,

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प्रश्न संख्या (Question No.)

इस भाग में कुछ न लिखें (Don't write anything in this part)

Q18. Discuss the impact of direct and indirect farm subsidies on the agricultural sector in India. How have MSP affected the agricultural economy?

→ The Agricultural sector contributes to 17% of share of GDP and employs 44% of total workforce.

Farm subsidies on agriculture may be direct like Direct Benefit Transfer or indirect like discounts on purchases of seeds and fertilisers.

Impact of Direct and Indirect subsidies.

Positive Impact

- → It led to increase in farmer's income
- → It ensures a security for farmers to involved in diversified farming
- → Thus it leads to food security
- → Diversity of food increases HDI with focus on crops like millets.
- → Increase use of technology and increase in productivity.

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Negative impact-

- Open procurement on wheat and rice has resulted in discouraging crop diversity.
- Ecological imbalance due to poor choice of crop
- Degradation of soil fertility due to excessive use of fertilizer
- Decreasing ground water table due to excessive use of irrigation.
- Poor targetting results in widening the income gap.

MSP and its effect on Agriculture.

MSP is the floor price offered on crops if price in the market is below farmer's cost of production.

In 2018, government decided to pay 1.5 [A_2 + F.L] as MSP.

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Effects: (Positive)

→ It is offered to protect farmers from distress sale

→ It leads to promotion of crop diversification

→ It reduces farmer's dependence on moneylender.

→ It assures marketing support.

Challenges

- APMC markets are controlled by few large traders which deprived farmers of better valuation of crop.
- It can result in increasing inflation
- It can distort market price mechanism.

Thus in order to reduce the challenges and ensure proper targetting, new initiatives like DBT through JAM trinity helps in achieving the expected goals.

Also, structural reforms is needed to ensure efficiency and inclusive growth.

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Q19 What is Global Methane Pledge ? Do you think Global Methane Pledge is a positive step towards mitigating methane emissions? Explain India's stance on this issue.

⇒ Global Methan Pledge was taken as an initative to reduce emission of methane by 30% by 2030. It was led by US and EU in the COP-26.

Global Methane Pledge → A positive step towards mitigating methane emission.

- Methane is the second most abundant & green house gass in the atmosphere after CO_2.
- Reducing methane emission requires less cost.
- It would eliminate over 0.2°C warming by 2050.
- It leads to using and transition to renewable source of energy which reduces green house gases.
- Methane is responsible for heating ground level ozone and it is 84 times more potent than carbon.

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Thus, reducing its emission can help in the fight against climate change.

India's Stand on the Issue.

India is ~~one~~ third largest methane emitter in the world. India along with Russia and China are not part of the Global Methane Pledge.

Reasons : India is a developing nation and it requires various developmental projects which emit methane.

Also, India is a rural led economy with various cattle based industries.

Steps to reduce emission

However, India is on the way of mitigating the emission. Some of the steps are:

1. Implementing schemes like GOBARDHAN Scheme to ensure proper sanitation and clean energy.
2. Implementing zero tillage in farming.

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3) Proper use of water in irrigation of rice crop to ensure minimised emmision

Therefore, India is currently not joining the pledge due to its constraints for development, however it is going towards mitigation with its capacity in order to fight the climate change.

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Q20. Trace the evolution of the Loss and Damage Fund. What are the major development related to loss and damage fund in COP27? What are the commitments made by India in this conference?

→ Loss and Damage fund refers to the fund which aims to provide financial assistance to nations most vulnerable and impacted by effects of climate change that cannot be avoided either by mitigation or adaptation.

Evolution of Loss and Damage Fund

- 2007 → COP 13: Consideration of means to address loss and damage introduced.
- 2010 → COP-16: SNI work programme established
- 2013 → COP19: Warsaw international mechanism and its executive committee established.
- 2014 → COP20: Initial 2 year work plan approved
- 2015 → COP21: Loss and Damage anchored in Paris Agreement, task force on Displacement established

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2016 → COP22 : Warsaw International Mechanism 1st review conducted

2017 → COP23 : Fiji Clearinghouse for Risk Transfer launched

2019 → COP25 : Warsaw International Mechanism 2nd review conducted and Santiago Network established.

2021 → COP26 : Functions of Santiago Network agreed and Glasgow dialogue established

2022 → COP27 : Santiago Network institutional Arrangement finalised and Loss and Damage funding Arrangement and funds established.

Loss and Damage fund in COP-27

In COP-27, countries have now agreed to setup a fund to provide financial assistance to poor nations striken by climate disaster

However there is no agreement yet on the mechanism of operation of fund as how finance should be provided and administered.

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Commitments by India in this Conference.

COP-27 is considered as COP of implementation.

India strengthens its commitment in COP-27 in following ways:

- emphasise the net zero emission by 2070
- transition to non fossil fuel through renewable energy, e-mobility, ethanol blended fuels, green hydrogen.
- updated its Nationally Determined Contribution
- foster strong international cooperation like International Solar Alliance.

Thus, in order to mitigate and take action against climate change, India has move forward with different multipronged strategies and emphasised on CBDR.

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