

**GS Advanced Program 2023****Generic Booklet**

Test Name/Code/No. : 693027 (#27)

Name			
Email ID.			
Roll No.			
Mobile No.		Date	

Allotted Time : 60 Minutes

Instructions to Candidates -

- There are 7 Questions in this Question paper.
- All Questions are Compulsory.
- For all updates, please visit the noticeboard -
<https://noticeboard.forumias.com/gsap-2023/>

Important -

- Answers must be attempted in the QCA Booklet only.
- To upload the Answer Copies please visit to "My Course" section on -
<https://academy.forumias.com/>
- Only those copies will be evaluated which will be submitted before the next class.

Q. No.	Grade/Score
1	
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Overall Grade/Score	

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Q.1)

Zero Budget Natural Farming (ZBNF) is a natural farming technique to grow crops and rear livestock. It was first introduced in 1970s in Maharashtra, India.

Bijamrit Seed management	Giramrit Soil fertility	Achhadana Mulching	Wasapha Soil aeration
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fig:- 4- Pillars of ZBNF.

Benefits of ZBNF to India

• Economic Benefits

- Low input cost leading to cheap means of production using natural resources.
- Higher yield will boost production and productivity.
- Augment and stabilize farmers' income
- ensure food & nutritional security.

- Environmental benefits
 - Enhanced health benefits because of no usage of chemicals
 - prevent algal blooms & fish kills (chemical fertilisers)
 - Save water and electricity → uses only 10% of water & electricity compared to conventional farming.

Challenges

- Lower yield is real scenario.
 - ① Sikkim farmers returning back to conventional farming.
- Complete reliance on ZBNF → food security & crisis.
 - ② Sri Lankan food shortages.
- Lower shelf-life and less appealing in texture & color.

ZBNF is an effective means of rejuvenating soil health and producing healthy food. However, better R&D needs to be done to improve its yield.

Overall Grading (✓)

Poor			Average			Good		
1	2	3	4	5	6	7	8	9

Q.2)

Organic farming is a technique of producing crops by natural ways using organic wastes and other organic inputs like bio-fertilisers.

Benefits of organic farming

- Improved health benefits because of non-usage of any chemicals like fertilisers or pesticides.
- Saves water as by using very less water as compared to conventional farming.
- Improves water health
 - ~~does not causes soil~~
 - prevents water contamination of groundwater & surface water
 - prevents algal blooms and fish kills.
- Improves soil health and prevents soil erosion.

Challenges of promoting organic farming

→ Lower yield compared to conventional farming.

eg Sikkim farmers - switching back to conventional farming.

→ Complete reliance on organic farming can lead to food shortages.

eg Sri Lankan food security crisis

→ Crops produced from organic farming has lower shelf-life.

→ Organically produced crops also are less appealing in texture and color.

Organic farming is a great method to get rid of ^{health} problems associated with conventional farming. In this regard, Paramparagat Kishi Vikas Yojana (PKVY) is a step in right direction as it promotes organic farming & ZBNF.

Overall Grading (✓)

Poor			Average			Good		
1	2	3	4	5	6	7	8	9

Q.3)

Agriculture sector in India faces ~~many~~ frequent risks including floods & droughts. Crop / Agriculture Insurance, therefore, provides coverage of risks of crop failures during natural ~~&~~ calamity or pest attack or disease.

Pradhan Mantri Fasal Bima Yojana (PMFBY)

→ launched in 2016 by Ministry of Agriculture & Farmers Welfare.

→ Key features

→ Eligibility — all farmers (tenants & sharecroppers included) growing notified crops.

→ Objective — provide crop insurance and financial support in situation of crop failure.

→ Premium — to be paid by farmers:

- Kharif crops — 2%
- Rabi crops — 1.5%
- Horticulture & Commercial crops — 5%

Risks covered under PMFBY

- ~~Non-preventable~~ Pre-harvest risks
 - Non-preventable risks like natural fires, draughts, cyclones, typhoons, etc.
 - Other risks - floods, pest attack, diseases etc.
 - Localised risks - inundation, hailstorm, etc.
- Post-harvest risks - covers risk to maximum period of 14 days from harvesting.

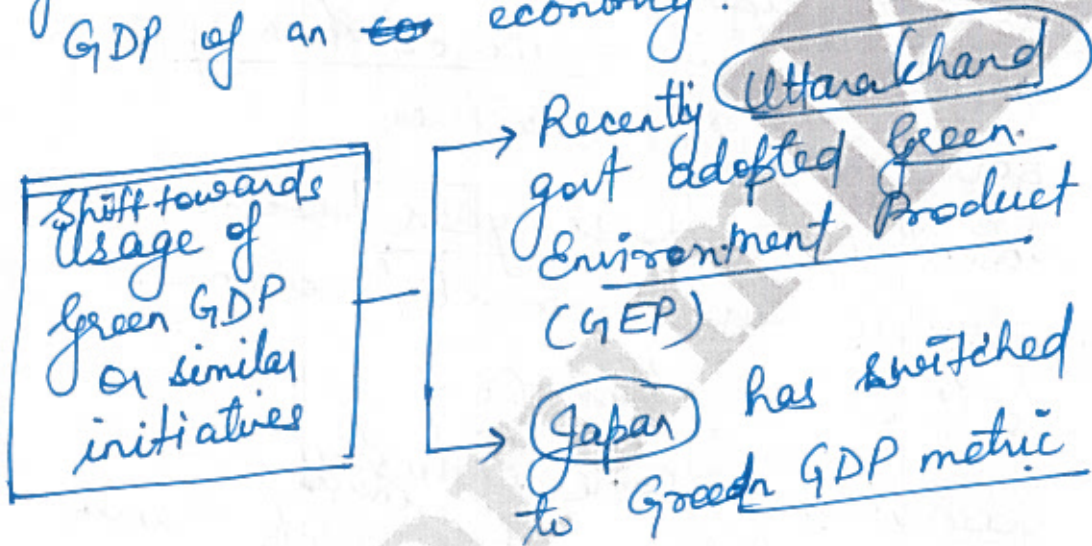
PMFBY is a significant scheme to address agrarian crisis in India. Country needs to enhance "Cooperative federalism" to improve its implementation and reap its intended benefits.

Overall Grading (✓)

Poor			Average			Good		
1	2	3	4	5	6	7	8	9

Q.4)

Green GDP is a technique of calculating GDP by adjusting environmental degradations. It can be calculated by subtracting the cost of environmental damage from the GDP of an economy.



Significance of Green GDP

- Cost of ecosystem services is twice that of total global GDP, hence must be accounted.
- It will help in conservation of environment and further reduce the effects of climate change.

Challenges in adopting Green GDP

- Realistic accounting - difficulty in measuring the intangibles and deriving its monetary value.
- Moving ~~away from~~ ^{away from} "one-size-fits-all" approach.
 - ~~for~~ finding tailored strategies for specific countries
- Identifying base-year with negligible environmental damage will be a challenge.
- Geography - some industries have little local harm but ^{incurs} high damage to distant places @ leather industries

Green GDP, although is difficult to calculate but is not an impossible task. Countries across the world along with industrial players should cooperate and work together in achieving this goal.

Overall Grading (✓)

Poor			Average			Good		
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Q.5)

TRIPS agreement was negotiated at WTO in 1995, which calls ~~for~~ ^{all} signatories to bring domestic laws ensuring minimum levels of IPR protection for chemical, drugs & food.

Provisions in TRIPS providing patent waivers

① Compulsory Licensing - licence given by govt to manufacture, use & sell patented products without the consent of patentee.

② Voluntary Licensing - licence granted for manufacture, use and sale of patented products with the consent of patentee.

Fight of developing countries to achieve patent waiver.

- Doha Declaration of WTO (2001)
 - Compulsory Licensing can be granted during Public Health emergency.
 - Compensation and royalties need to be given to patentee.
- Indian Patents Act, 1970 allowed comp. licensing in case of national emergency and extreme urgency.
- COVID-19 : India & South Africa called for complete IP waiver for COVID-19 vaccines, drugs & therapeutics.

Need for IP waiver

- Plugging-in the shortage of vaccines
 - saving lives in 3rd world countries.

- Bringing the prices of essential vaccines & drugs down.
- global cooperation to improve health of people.

Challenges / Issues not IP waiver

- discourages investment in R&D.

- creates the problem of quality check.

Domestic laws and international conventions must promote innovations. But at the same time it should not affect the accessibility & availability of vaccines or other critical medical supply during public crisis like COVID-19.

Overall Grading (✓)

Poor			Average			Good		
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Q.6)

Fertilizers are artificial chemicals that are added to soil to improve its nutrient-holding capacity and improve its fertility.

Currently, average consumption of fertilisers in India is $\frac{135 \text{ kg/ha}}$ which is one of the highest in the world.

Issues plaguing fertiliser sector

- ★ Disproportionate use of urea over other fertilisers due to subsidy.

⑨ Global standard NPK ratio is $4:2:1$ but Punjab & Haryana has NPK ratio of $25:5:1$

- High fiscal burden on govt. due to fertiliser subsidy.
→ Fertiliser subsidy is 2nd highest subsidy after food subsidy in India

- Import dependence :-
 → India's annual requirement of fertiliser is 55 MMT of which 72% is domestically produced and remaining is imported.
- Huge inter-state disparity in usage of fertilisers.
 (e.g.) Rajasthan - 70 kg/ha.
 Telangana - 125 kg/ha.
- Diversion of fertiliser subsidy
 → 41% of fertiliser subsidy is utilised by non-agriculture sector.
- Environmental issues due to overuse
 → degrades soil health & has health impacts on humans.
 → Nutrient rich fertiliser run-offs can lead to algal blooms and fish kills.
 → Contamination of surface water and ground water.

Measures to reform

- ① Rationalisation of subsidy scheme
→ capping the no. of bags to be taken by an individual at PoS.
- ② Bringing self-reliance or Atma-misbharta in fertiliser production
- ③ Promoting green alternatives
(eg) bio-fertilisers
- ④ Generating farmers awareness regarding overuse of fertilisers through Kisan Samridhi Kendras.

Overuse & disproportionate use of fertilisers have plagued the agriculture sector. In this regard, initiatives like zero-budget natural farming, organic farming, soil health card scheme, etc. are steps in right direction.

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Poor			Average			Good		
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Q.7)

Gross Domestic Product or GDP is the market value of all goods and services produced by an economy in a given period of time.

In India, GDP data is calculated by National Statistical Office (NSO).

Difference between GDP computing methodology pre & post year 2015.

Parameters	Pre - 2015	Post - 2015
Base year	2004-05	2011-12 Changed to capture accurate economic information
Market price and Factor Cost	Calculated GDP at Factor cost. based only on cost of production	GDP at market price which includes cost of production & product

		Subsidies and taxes
Calculation of labour cost	Assigned equal weightage to all types of labour	Introduced "Effective labour input" with different weights for owners, hired workers & helpers.
Value addition by agriculture	Covered value addition of only farm produce	Expanded scope beyond farm produce. (e.g.) Livestock sector
Performance of manufacturing sector	Calculated by data from Index of Industrial Production & Annual Survey of Industries	Calculated based on accounts filed by firms in Ministry of corporate Affairs

	Pre-2015	Post-2015
Contribution of financial sector	Previously limited to private banks, few mutual funds & Pvt NBFCs	Now expanded the coverage to include stock brokers, stock exchanges, mutual funds, pension funds, PFRDA, SEBI, IRDA, etc.

$$GDP_{MP} = GDP_{PC} + \text{Indirect taxes} - \text{subsidies}$$

The new method of calculating GDP is statistically more robust as it includes different parameters like employment & performance of various sectors like finance & manufacturing. Thus, it is more responsive to current changes in economy.

Overall Grading (✓)

Poor			Average			Good		
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