



VISION IAS

02 AUG 2018

www.visionias.in

GENERAL STUDIES (TEST CODE : 1060)

Name of Candidate	PAWAN KUMAR GOEL		
Medium Eng./Hindi	ENGLISH	Registration Number	104395
Center	ORN	Date	11/9/18

INDEX TABLE			INSTRUCTIONS
Q. No.	Maximum Marks	Marks Obtained	
1	10		1. 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)। 2. There are TWENTY questions printed in ENGLISH & HINDI इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं। 3. All questions are compulsory. सभी प्रश्न अनिवार्य हैं। 4. The number of marks carried by a question/part is indicated against it. प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं। 5. 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। 6. Word limit in questions, if specified, should be adhered to. प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए। 7. 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।
2	10		
3	10		
4	10		
5	10		
6	10		
7	10		
8	10		
9	10		
10	10		
11	15		
12	15		
13	15		
14	15		
15	15		
16	15		
17	15		
18	15		
19	15		
20	15		
Total Marks Obtained:			
Remarks:			

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

M-1/4, Plot No-A-12/13, 1st Floor, Ansal Building, Dr. Vidya Sagar Homoeopathic Clinic, 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.

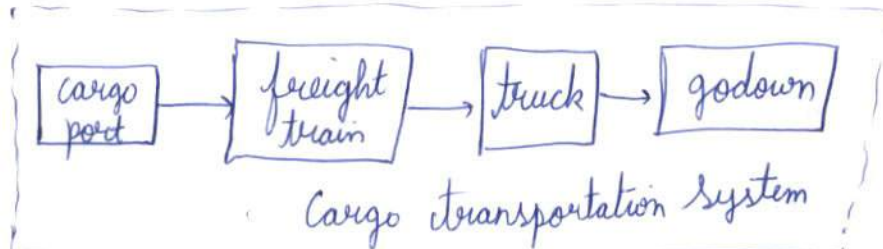
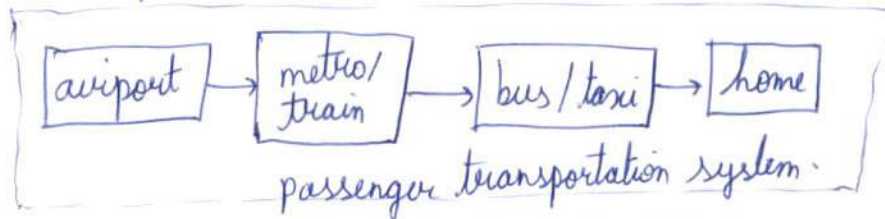
6.

All the Best

1. Discuss the prospects & challenges in adopting an integrated multimodal transportation system in India with reference to government initiatives in this regard. (150 words) 10

भारत में एकीकृत मल्टीमॉडल परिवहन प्रणाली के संबंध में सरकार की पहलों को संदर्भित करते हुए इसे अपनाने से संबंधित संभावनाओं एवं चुनौतियों पर चर्चा कीजिए।

Multimodal transportation system means seamless interconnection of one mode of transportation with other.



Prospects

- 1) It reduces transportation time and reduces cost ~~over~~ ~~overrun~~ because of delays.
- 2) It helps in fast transportation of perishable goods like ~~veg~~ vegetables, milk and weight losing substances like coal. This reduces loss.

- 3) Increases convenience of passenger. which is important to encourage public transportation so as to reduce green house gases from private vehicles.
 - 4) Government in its New Metro Policy, 2017 has ~~pro~~ proposed multimodal linkage.
 - 5) Development of Inland water by schemes such as Jal Vikas Marg from Haldia to Allahabad aims at multimodal linkages.
 - 6) It has reduce logistic cost from present 14% to 10%.
- Challenges
- 1) ~~Un~~ Unplanned transportation planning and urban development has made it difficult to bring structural changes.
 - 2) Lack of Infrastructure
 - 3) Low financial capital
 - 4) Land Acquisition from highways under Bharatmala, bullet train (from Mumbai to Ahmedabad).

2. Contract farming can help in the expansion of organized food processing industry in India by strengthening backward linkages. Comment. What changes are required in the existing regulatory structure to address issues related to contract farming in India? **(150 words) 10**

अनुबंध कृषि (कॉन्ट्रैक्ट फार्मिंग) बैकवर्ड लिंकेज को सुदृढ़ कर भारत में संगठित खाद्य प्रसंस्करण उद्योग के विस्तार में सहायता कर सकती है। टिप्पणी कीजिए। भारत में अनुबंध कृषि से संबंधित समस्याओं को हल करने हेतु वर्तमान नियामक संरचना में क्या परिवर्तन आवश्यक हैं?

In contract farming, a contract is signed between farmer and industry. According to which corporate guarantees buying of farmers produce on harvesting.

Contract farming has following Advantages :-

- 1) Provide assured buyer to the farmer.
- 2) It provides assured supply to food processing industry. This allows better management of supply line & logistics.
- 3) Industries can specify the minimum standard of quality beforehand. This ensures quality is maintained.

Though contract farming suffers from several disadvantages :-

- 1) often standard of quality is not maintained by farmer.
- 2) In case of bumper crop, industry cannot procure the whole crop this creates mistrust between farmer & crop industry.
- 3) In case of crop failure industries supply chain gets affected.

So to overcome such challenges NITI Aayog has come up with Model Contract Law to bring changes to the existing regulatory framework.

3. In view of the direct link between tenure security and food security, there is need for a conducive legal framework for land rights in India. Discuss.

(150 words) 10

पट्टे की सुरक्षा और खाद्य सुरक्षा के बीच प्रत्यक्ष संबंध को ध्यान में रखते हुए, भारत में भूमि अधिकारों के लिए एक हितकर कानूनी ढांचे की आवश्यकता है। चर्चा कीजिए।

Both tenure security & food security
are directly linked as:-

- 1) Peasant can grow crop ~~so~~ for his/her family's subsistence.
- 2) ~~Without~~ ^{on} land rights his ~~source~~ of livelihood ~~will~~
- 2) His source of livelihood depends on land.

So there is a need for conducive legal framework which guarantees land rights especially to women who form ~~are~~ 55% of agriculture workforce but don't have rights over land because of cultural prescription.

4. The ultimate goal of farm loan waivers is to lessen the debt burden of distressed and vulnerable farmers and help them qualify for fresh loans. However, this practise suffers from several drawbacks. Discuss.

(150 words) 10

कृषि ऋण माफ़ी का अंतिम लक्ष्य संकटग्रस्त और सुभेद्य किसानों का ऋण बोझ कम करना और उन्हें नए ऋणों के लिए अर्ह बनाने में सहायता प्रदान करना है। हालांकि, यह चलन कई कमियों से ग्रस्त है। चर्चा कीजिए।

There has been rising demand for farm loan waiver throughout the country. Though on face of it, it seems to provide immediate relief but in reality it suffers from several drawbacks:-

- 1) It benefits big farmers who have taken loan from bank. Since small & vulnerable farmers don't have access to bank credit, so they are not much benefited from loan waiver.
- 2) It creates a moral hazard as ~~poor~~ farmers who have repayed loan will feel cheated for complying with the rules.
- 3) It can further lead to rise of NPA in already stressed and overleveraged banking system.
- 4) In future repayment of loan will further

decline, as they will wait for elections to get loan waiver.

Solution

- 1) Instead of money ~~is~~ needed for loan waiver, same amount can be used ~~general~~ creating assets for farmer.
- 2) Instead of loan waiver, give ~~to~~ use same money to give them extra loan to support them to come out of distress. Once out of distress can be asked to repay loan.
- 3) Focus of Allied sector, increase farmers insurance under Broadband Maitii Fasal Bima Yojana to give protection.

5. Minimum Support Price (MSP) of crops is a short term solution for agricultural distress which creates long term problems. Examine. Suggest measures to overcome the the limitations of the MSP regime.

(150 words) 10

फसलों के लिए न्यूनतम समर्थन मूल्य (MSP) कृषि संकट का एक अल्पकालिक समाधान है जो दीर्घकालीन समस्याएं पैदा करता है। परीक्षण कीजिए। MSP व्यवस्था की कमियों से निजात पाने हेतु उपाय सुझाइए।

MSP is the ^{minimum} assured price for their crop to the farmer given by the government. It is decided by on the recommendation of Commission for Agriculture Cost and Prices.

MSP provides short term solution

such as:-

- 1) It assures farmers that their crops will be procured. This reduces anxiety and of farmers.
- 2) It protects farmers from adverse market forces and steep fall in prices

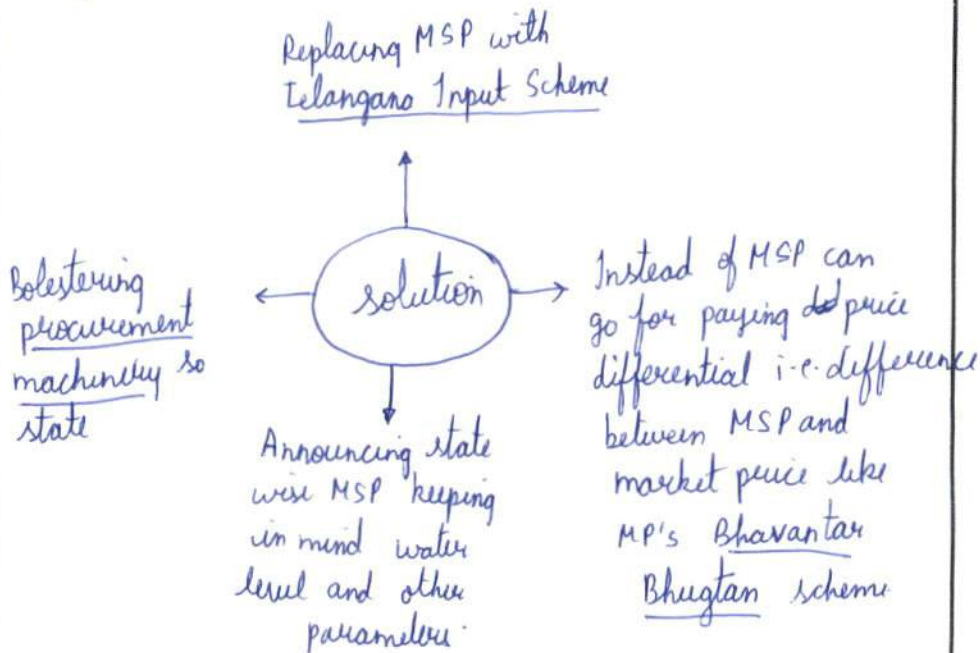
MSP creates long term problems as:-

- 1) ~~MSP~~ Since MSP ~~is~~ on crops is not area specific, so even water stressed states like UP, Punjab have started growing water intensive crop like rice. This has

furthered strained the water crises in these states.

2) ~~MSP~~ Though MSP is announced for 24 crops only wheat & rice are procured. So this has led to decrease in diversity of crops.

3) ^{High} MSP lures farmers to grow a particular crop. So it decreases after supply increases with exceeds demands which bring down prices of crops leading to farmer distress.



6. With women playing an increasingly significant role in the Indian agriculture sector, gender specific interventions can be the key to improving agricultural productivity. Discuss. (150 words) 10

भारतीय कृषि क्षेत्रक में महिलाओं की बढ़ती भूमिका को ध्यान में रखते हुए, कृषि उत्पादकता में सुधार लाने के लिए लिंग विशिष्ट हस्तक्षेप महत्वपूर्ण हो सकते हैं। चर्चा कीजिए।

~~As~~ Women constitute 55% of agricultural worker and this is bound to increase due to male migration towards cities in search of livelihood.

challenges faced by women :-

- 1) Lack of land holding rights → ~~women~~ Only 13% women have access to property right.
- 2) No access to finance → women ~~are~~ due to absence of property right don't get loans from banks. So have to depend on moneylenders.
- 3) Lacks skill → Women farmer lack skill to operate machines like tractor

~~Having~~ gender specific intervention to increase agricultural productivity :-

- 1) Developing women self help group and

cooperatives. This should reduce cost of production because of economies of scale and increase their bargaining power.

2) Skilling Women → Recently few women were selected for training in International Rice Research Institution, Philippines.

3) Developing technology to suit women anatomy.

4) ~~By~~ Creating awareness to ensure property rights to women.

5) Promoting Allied activities like dairy, poultry among women farmers to boost their income.

Government should formulate gender specific and sensitive policy in order to double farmers income by 2022.

7. Enumerating the factors that determine a nation's energy-mix, comment on the need for having a diversified fuel basket for meeting India's future energy demands. (150 words) 10

किसी राष्ट्र के ऊर्जा-समिश्र (एनर्जी-मिक्स) को निर्धारित करने वाले कारकों को सूचीबद्ध करते हुए, भारत की भावी ऊर्जा मांगों को पूरा करने हेतु एक विविधित फ्यूल बास्केट के होने की आवश्यकता पर टिप्पणी कीजिए।

Energy is backbone of every Nations economy, it is required for running industries, vehicles etc.

A Nation's energy mix is determined by various factors :-

- 1) Availability of Natural Resources → A country always try to use that energy source which is with itself. So country ^{rich} in gas will use gas and country rich in petroleum will use petroleum.
- 2) Extent of Demand for a particular energy resource.
- 3) Use of renewable sources of energy also ^{extent of} determines a nation's energy mix.
- 4) Cost of different energy sources like Uranium, gas, petroleum also determines energy basket of a country.

Need for Diversified basket :-

- 1) Reduces dependence on a single country.
- 2) ~~His~~ Reduces impact on energy security due to changing geopolitical scenarios.
- 3) It also a country to better negotiate prices of fuel.
- 4) Diversification also gives backup against changing fuel prices.
- 5) ~~India needs to expa~~
govt Government has already taken steps to diversify fuel basket :-

- 1) Aim to increase renewable sources of energy to 175 GW by 2020
- 2) Signed MOU's with Kazakhstan, Australia, Canada for Uranium.
- 3) Importing shell gas from USA
- 4) Invested in Mozambique and Iran Farzad B gasfield for access to gas.
- 5) Planning to access Lithium (future energy source) from Bolivia.

8. Despite being a water-stressed economy, micro irrigation penetration in India remains sub-optimal. Discuss the reasons behind it. Also list measures taken by the government to provide an impetus to micro irrigation.

(150 words) 10

एक जल-संकटग्रस्त अर्थव्यवस्था होने के बावजूद, भारत में सूक्ष्म सिंचाई की पैठ उप-इष्टतम (सब ऑप्टीमल) बनी हुई है। इसके पीछे उत्तरदायी कारणों की चर्चा कीजिए। साथ ही, सूक्ष्म सिंचाई को प्रोत्साहन देने हेतु सरकार द्वारा उठाए गए कदमों को भी सूचीबद्ध कीजिए।

According to NITI Aayog Report, India is going to face its worst water crisis with demand exceeding supply by 2030.

Water for Irrigation is the ~~last~~ ^{low} takes away the largest share of water ~~and so~~. This fact highlights the need for micro irrigation.

Micro irrigation is suboptimal as:-

- 1) Lack of focus of policymakers on micro-irrigation until the recent years.
- 2) Lack of awareness among farmers to use micro irrigation.
- 3) ~~Even~~ farmers need finance and knowledge to setup a micro irrigation system.
- 4) ^{General} Apathy towards use of water and groundwater.
i.e. water not considered precious enough to be conserved.

Measures taken by government:-

- 1) Developing microirrigation under Pradhan Mantri Krishi Sinchayee Yojana
- 2) Signing MOU's with Israel which is global leader of ~~farm~~ micro irrigation for capacity building in India.
- 3) NABARD ^{refinancing} ~~given~~ loans to microfinance institutions to give loans for microirrigation.

It is high time that we take steps to develop microirrigation so as to reduce wastage of water and achieve the target of 'more crop per drop'.

9. What are the issues in effective implementation of Targeted Public Distribution System (TPDS) in India? Do you think direct benefit transfer as an alternative to TPDS is a viable solution to attain food security?

(150 words) 10

भारत में लक्षित सार्वजनिक वितरण प्रणाली (TPDS) के प्रभावी कार्यान्वयन में क्या समस्याएं हैं? क्या आप मानते हैं कि TPDS के विकल्प के रूप में प्रत्यक्ष लाभ अंतरण खाद्य सुरक्षा प्राप्त करने का एक व्यावहारिक समाधान है?

Targeted Public Distribution system aims to provide subsidised food to targeted poor population of the country.

Issues in effective Implementation:-

- 1) Subsidy leakage and divergence of food to black market.
- 2) Existence of ghost beneficiaries and corruption
- 3) Poor quality of food grain.
- 4) Problem in Aadhar authentication leading to denial of access to food grain.

Direct Benefit transfer ^(DBT) aims to remove these problems by directly depositing money into the bank account of the beneficiary.

Reasons why DBT is a viable alternative :-

- 1) It ~~is~~ removes the issue of hoarding, diversion of food grain.
- 2) food habits vary from region to region. So DBT provides autonomy to individual over his food habits.
- 3) It removes the problem of Aadhaar authentication and ghost beneficiaries.

Reasons why DBT can't be a viable Alternative

- 1) Inflation in food prices can reduce nutritional security of poor.
- 2) Money deposited might be misused for drinking and gambling by ~~man~~ man of the house.

~~3)~~ Instead of replacing TPDS with DBT it would be better to pluck its loophole and make Aadhaar based Authentication more reliable so as to ensure the goal of Food & Nutritional security.

10. Assigning infrastructure status to the logistics industry is a good first move, but there are several other problems related to this sector that need to be addressed. Discuss. (150 words) 10

लॉजिस्टिक्स (संभार-तंत्र) उद्योग को अवसंरचना का दर्जा देना एक अच्छी आरंभिक पहल है, लेकिन इस क्षेत्रक से जुड़ी अन्य कई समस्याएं हैं जिनसे निपटने की आवश्यकता है। चर्चा कीजिए।

Logistic sector has been given infrastructure status, which will improve its access to low cost loans and attract ~~fund~~ debt finance.

This is a nice step but other problems have also lead to ~~increase~~ high logistics cost of 14% in India.

These problem include :-

1) Poor infrastructure

India has poor connectivity with roads, overburdened railway system and an ~~underdeveloped~~ underdeveloped inland waterways.

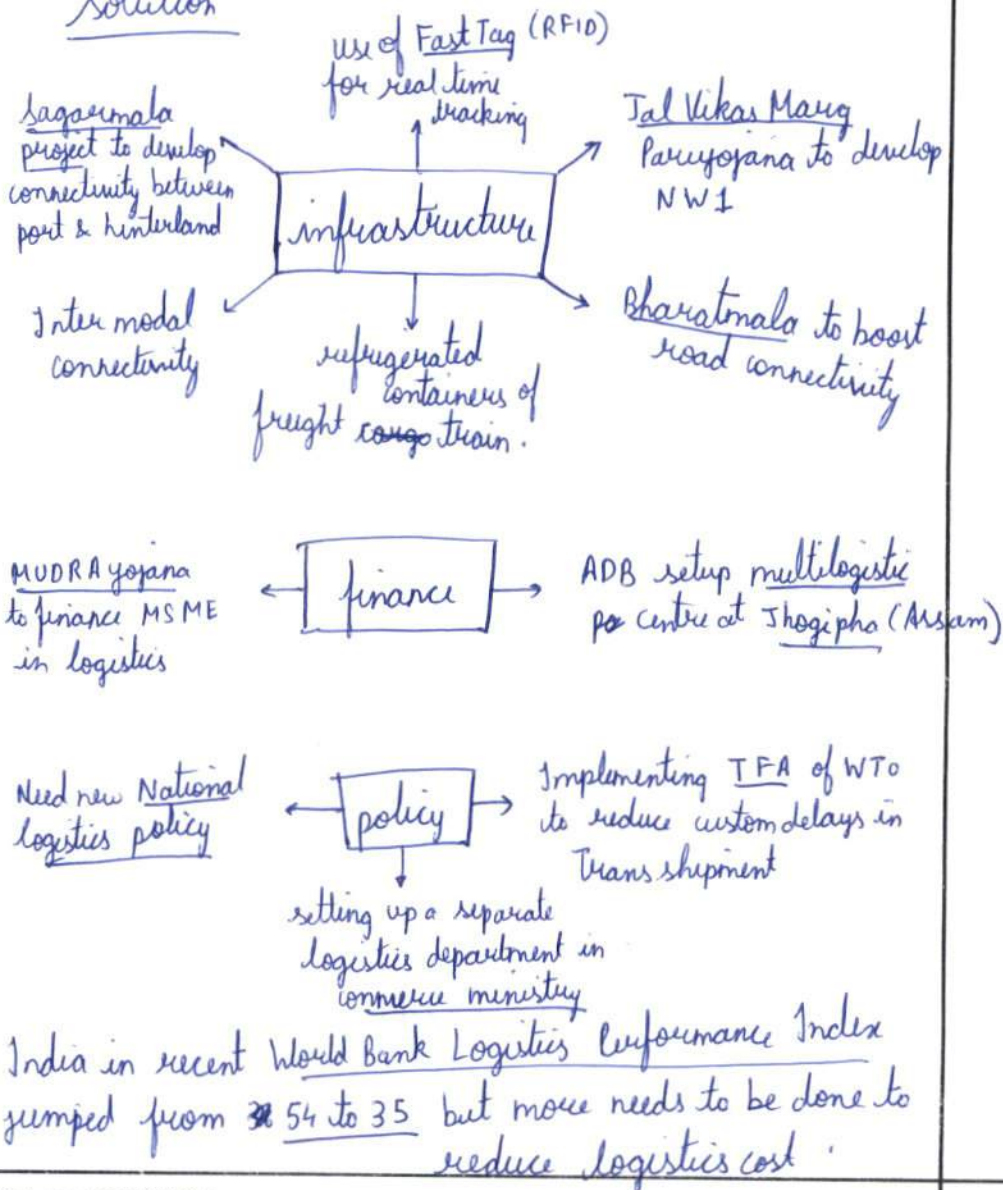
2) Lack of skilled manpower

~~It is~~ It leads to decrease productivity and

3) Use of obsolete technology → hampers full potential utilisation of the logistics sector.

- 4) Most of the logistics sector is unorganised and so there is lack of data availability.
- 5) ~~So~~ old Redundant laws and policy hamper development of logistics sector.

Solution



11. Enhancing private infrastructure spending and revival of stalled projects is critical to the success of Bharatmala Pariyojana. Discuss. Also enumerate measures taken by the government to revive stalled projects on National Highways. (250 words) 15

निजी अवसंरचना व्यय में वृद्धि एवं अवरुद्ध परियोजनाओं का पुनरुद्धार भारतमाला परियोजना की सफलता हेतु महत्वपूर्ण है। चर्चा कीजिए। साथ ही, राष्ट्रीय राजमार्गों से संबद्ध अवरुद्ध परियोजनाओं के पुनरुद्धार के लिए सरकार द्वारा उठाए गए कदमों को सूचीबद्ध कीजिए।

Bharatmala Pariyojana aims to build a network of highways, rural roads, border road and international roads from India to other nations.

It is suffering from challenges such as :-

- i) Weak private Infrastructure spending
Bharatmala Pariyojana estimated cost is ₹ 4-5 Lakh crores. So it becomes important for private players to also make contribution in infrastructure spending. But they are unable to do so as :-

- a) Overleveraged balance sheet because twin balance sheet problem.
- b) Low credit access from banks due

to rising NPA.

c) Fear of project being stalled due to problem of land Acquisition.

2) Projects getting stalled

Project are getting stalled because of *
* Problem in land Acquisition. People
Local population protest because:-

- a) They are unwilling to give their land.
- b) Not adequately compensated and
- c) ~~Not~~ Not rehabilitated
- c) Promise of job in return of land not being fulfilled.

It is very important to bring back confidence of private players by resuming the stalled project as it will:-

- (i) Bring certainty to project completion
- (ii) Reduce cost & time over-runs.

Steps taken by government are :-

- 1) Government is experimenting with new kinds of PPP models such as BOT (Build - operate - transfer), EPC [Engineering Procurement Construction] and HAM [Hybrid Annuity Model]
- 2) Creating land banks to ease process of land Acquisition.

12. Going forward, the allied sectors will play a critical role in increasing the resilience and improving economic returns in agriculture. Discuss.

(250 words) 15

आगामी समय में, संबद्ध क्षेत्रक कृषि में लचीलापन बढ़ाने एवं आर्थिक प्रतिफल में सुधार लाने में एक महत्वपूर्ण भूमिका निभाएंगे। चर्चा कीजिए।

Allied sector includes dairy, poultry, beekeeping, pisciculture etc. These can increase resilience & economic returns on farming as:-

- 1) Assured source of Income → Allied sector ~~is~~ like dairy is not a seasonal activity like agriculture. So this provides a steady source of income.
 - 2) Less Vulnerable to vagaries of climate change ~~is~~. Agriculture depends on rainfall but allied sector not so much affected by climate change.
- 3) Keeping in mind its benefits government has initiated schemes like:-

- 1) Focusing on niche areas such as sea-weeding farming, neem oil and aquaculture.
- 2) For give a boost to dairy sector multiple schemes such as Rashtriya Gokul Mission, National Bovine Productivity Mission, Hisar Gaurav etc have been initiated.
- 3) Focus on capacity building and creating linkage between farmer and market.
- 4) NABARD giving loans for allied sector such as beekeeping etc.

Allied sector should be given due importance as it will ~~also~~ help to increase farmer income and reduce suicide rate.

13. Enumerating the features of Pradhan Mantri Kisan Sampada Yojana, discuss its potential for the growth of food processing sector in the country. (250 words) 15

प्रधान मंत्री किसान सम्पदा योजना की विशेषताओं को सूचीबद्ध करते हुए, देश में खाद्य प्रसंस्करण क्षेत्र का विकास करने की इसकी क्षमता की विवेचना (चर्चा) कीजिए।

In Budget 2018-19 government had doubled the allocation to food processing sector. This shows the importance given by government to it.

Apart from this government initiated Pradhan Mantri Kisan Sampada Yojana in order to give boost to food processing industry.

Its features

- 1) Developing mega food processing parks.
- 2) Developing logistics such as cold storage, ~~processing~~ warehouses etc.
- 3) Linking farmers & cooperatives with industry.
- 4) Reducing food waste in processing.

food processing sector has immense potential in India as:-

- 1) It can ~~increase~~ ^{double} ~~the~~ income of farmers by 2022.
- 2) ~~6~~ Presently India is exporting raw fruits and vegetables. ~~It~~ After food processing we can export finished product. ~~leading~~ thereby increasing

FOREX

- 3) It has ~~unexplo~~ tremendous potential to generate employment.

Government is taking many steps to develop a strong food processing base in India by:-

- 1) Operation Green will ~~not~~ also help to boost food processing.
- 2) NITI Aayog's Model Contract to link farmers

and Industry-

3) Liberalising FDI norms in food processing
Industry.

14. Enumerate the factors that determine cropping pattern in an agricultural region. Discuss the need for diversification in context of problems being faced by monoculture regions in India. (250 words) 15

किसी कृषि क्षेत्र में फसल पद्धति को निर्धारित करने वाले कारकों को सूचीबद्ध कीजिए। भारत में एकल फसली क्षेत्रों द्वारा सामना की जा रही समस्याओं के संदर्भ में फसल विविधीकरण की आवश्यकता की चर्चा कीजिए।

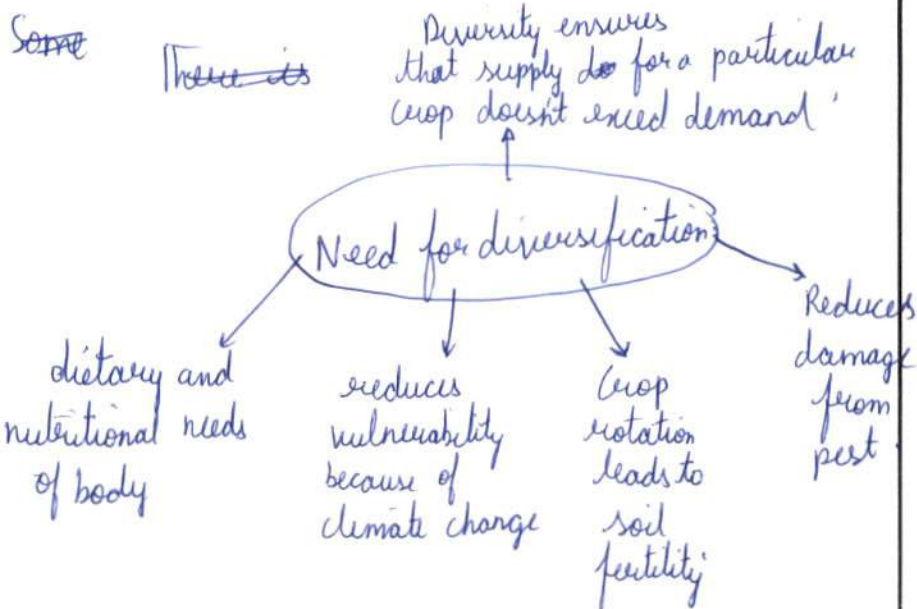
India being the 2nd largest agriculture producer is blessed to have a wide variety of crops.

These cropping pattern depends on multiple factors like:-

- ① Geographical condition → The type of soil, rock, terrain plays an important role in determining cropping pattern.
- ② climatic condition → Since 60% of Indian agriculture rainfed. So amount of rainfall and other climatic condition like temperature ~~are~~ are important for determining cropping pattern.
- ③ Market Demand → Demand of price and ~~price~~ of its selling price in market. MSP announced by government is also

given due consideration.

④ Access to Resources → Land, capital, labour
determines the crop which has to be grown.



In India monoculture is being practiced as:-

1) ^{Higher} MSP and efficient procurement of rice and wheat has is leading to ~~dis~~ distortion discrimination against other crops.

2) ~~Cultural~~ Traditional Crops → Farmers out of ~~into~~ inertia and traditional practices

unwilling to try new crops.

- 3) change in dietary intake → Since, ^{diversity in} consumer diet is decreasing so diversity in crop production also ~~is~~ decreasing. Eg) In recent years ~~to~~ millet consumption in consumer diet has led to its lower production.

15. Discussing the opportunities presented by decentralised energy systems, enumerate their environmental, economic and social benefits along with institutional, technical and financial challenges that they present.

(250 words) 15

विकेन्द्रीकृत ऊर्जा प्रणालियों द्वारा प्रस्तुत अवसरों की चर्चा करते हुए, उनके पर्यावरणीय, आर्थिक और सामाजिक लाभों के साथ-साथ उनके द्वारा प्रस्तुत की जाने वाली संस्थागत, तकनीकी और वित्तीय चुनौतियों को भी सूचीबद्ध कीजिए।

Decentralised energy system such as roof top solar panels, small solar & wind farms — ~~this provide energy~~ reduces dependency on central grid for power.

It provides ~~low~~ lots of opportunities :-

1) Help to reach ^{electricity to} geographically isolated and tough terrains like hilly regions of NE North East, desert of Rajasthan

2) Reduces cost of providing electricity as no need to setup long transmission lines.

3) They ~~are~~ Since they normally use renewable sources of energy so ~~are~~ environmentally friendly.

4) When electricity reaches rural areas then

Economic benefit

Environment benefit

girl education also improves as she doesn't have to go to collect firewoods ~~for~~ and hence can attend school. } social benefit

challenges

- 1) Institutional challenges
 - No integrated ^{nationwide} policy for decentralised power system.
 - ~~Various~~ Lack of coordination between various ministries and department.
- 2) Technical
 - Solar, wind & other renewable sources of energy are not reliable sources so we need to ~~connect~~ provide backup with a centralized server.
 - It is technically tough to connect various decentralised system with central grid as instability in one decentralised system can shutdown the whole grid.

3) financial
Decentralised system suffer from financial
crunch as bank unwilling to have reduced
credit facility because of rising NPA.

steps taken by Government →

SRISTI

scheme to
boost rooftop
solar panel

KUSUM

To encourage
farmers to
use solar
pumps. ~~For~~
* Electricity
generated can
be used to
run pumps

Smart grid

what where
bidirectional
power
supply
is
possible

Deen Dayal

Upadhyaya

Grameen

Tyoti

Tojana

Under
this
decentralised
solar sets
used
to light
entire
village.

16. In context of the critical public service role played by the railways, it is difficult to argue that its problems will be solved by privatisation, rather there is a need to work on other options. Discuss. (250 words) 15

रेलवे द्वारा निभाई जाने वाली महत्वपूर्ण सार्वजनिक सेवा को देखते हुए, यह तर्क देना कठिन है कि निजीकरण से इसकी समस्याएं सुलझ सकेंगी। इसके बजाय अन्य विकल्पों पर कार्य करने की आवश्यकता है। चर्चा कीजिए।

Railway is the backbone of India's economy and the largest employer with around 1.3 million employees.

~~Challen~~ challenges faced by railways in public service delivery:-

- 1) High operating Ratio → Its operating ratio is 99.6 i.e. railway spends ₹99.6 on maintenance and operation for every ₹100 it earns. This is leading to shortage of finance.
- 2) Lack of Modernisation → This ~~is~~ causes delays because of fog in winters, slow speed of train.
- 3) Unhygienic Public service → often complaints

regarding ~~delay~~ or ~~untidy~~ toilets and
~~to~~ unhygienic food.

4) Accidents → Due to poor maintenance and
~~its~~ lack of technology, number of
accidents have increased.

5) Overburden → Railway in some stretches
have ~~operating ratio~~ track utilisation
ratio upto 150%. - This is causing delay
in train service.

To solve these problems, privatisation
has been given as a solution as it would
increase efficiency of service delivery.

But ~~it self~~ this solution suffers from
challenges such as :-

1) Railway is involved in Nation service
by catering to backward and geographically
isolated regions such as North East,
Jammu and Kashmir. Private players won't
show interest in these areas.

- 2) Railways provides subsidised rail fare to poor.
- 3) Private players don't have enough capital to tackle problems of railway.
- 4) Privatisation of railways will not increase existent rail network. It will just change the owner. So ~~it~~ with open track utilisation.

It requires a multidimensional solution to tackle problem of railways:-

- 1) Stop cross-subsidising passenger tariff with cargo tariff. As cargo is main source of income of railways & this is leading to loss of cargo traffic.
- 2) Monetisation of land ~~to and using~~ to raise non-tariff revenues.
- 3) National Rail Authority → setup to suggest passenger tariff.
- 4) Modernisation of railways like starting bullet train & other high speed train.

Govt Government can go for selective privatisation where railway ~~do~~ performs only core technical task and other task like catering food, cleaning trains can be given to private players.

17. The irony of high consumer prices when farmers do not receive adequate margin for their produce calls for an overhaul of agriculture marketing. Discuss the various steps taken by government in this regard. Also suggest ways to further reduce the gap between consumer prices and farmer realisation. (250 words) 15

जब किसानों को उनकी उपज के लिए पर्याप्त लाभ नहीं मिल पाता है तो ऐसे में उच्च उपभोक्ता कीमतों की विडंबना कृषि विपणन में एक आमूलचूल सुधार की माँग करती है। इस संबंध में सरकार द्वारा उठाए गए विभिन्न कदमों की चर्चा कीजिए। साथ ही, उपभोक्ता कीमतों और किसानों को प्राप्त होने वाले मूल्यों के बीच अंतराल को और कम करने के तरीके सुझाइए।

Several various survey conducted shows that farmers get only 25-30% of final price paid by consumer, the rest is taken up by middlemen. This is leading to :-

- 1) agrarian distress → farmers launching movement for loan waiver in Maharashtra
- 2) farmer's suicide → In 2015, 12,000 farmers committed suicide

This grim situation brings in light the need for ~~an~~ overhaul of agriculture marketing.

The steps taken by government in this matter are :-

1) e-NAM (National Agriculture Market)

It is an online portal which connects all the 585 APMC's present in the country. This reduces the monopoly & cartelization done by APMC's.

2) ~~Under~~ ^{22,000} ~~Dec~~ ⁱⁿ Budget 2018-19, proposed upgrading local haats into GRAams this will boost access of ~~for~~ small and marginal ~~ma~~ farmer to mandi without the need of any intermediary.

3) NITI Aayog's Model Contract Act to develop direct linkages between farmers and big corporates like Big Bazar, Reliance Fresh etc.

4) e-National Warehousing Receipt
This will allow farmers to store his produce and use the receipt for selling his produce. This will also reduce physical

movement of goods.

Ways to reduce gap between consumer prices and farmer realisation are:-

- 1) Reducing middlemen as they take away maximum profit.
- 2) Cracking down on hoarders to reduce artificial ^{food} inflation. This was reduce burden on consumer.
- 3) Renaming APMC as they ~~are~~ thought they were meant for welfare of farmers, but are now involved in exploiting them by giving less price because of blackmarketing and cartelization.

Way forward

Government should focus on ~~giving~~ rolling out Telangana government's Input Scheme at

national level in order to assure fixed incomes for farmer. Apart from that Agricultural marketing should be restricted to being parity between ~~the~~ consumer and farmer.

18. Identifying the key elements under the Mission for Integrated Development of Horticulture (MIDH), briefly explain how it can lead to holistic development of the horticulture sector in India. Also elaborate the factors which act as roadblocks for the efficient supply chain of Fruits and Vegetables sector in India. (250 words) 15

वागवानी के समन्वित विकास के लिए मिशन (मिशन फॉर इंटीग्रेटेड डेवलपमेंट ऑफ हॉर्टिकल्चर: MIDH) के अंतर्गत प्रमुख तत्वों की पहचान करते हुए, संक्षेप में व्याख्या कीजिए कि यह भारत में वागवानी क्षेत्रक के समग्र विकास को किस प्रकार बढ़ावा दे सकता है। साथ ही, भारत में फल एवं सब्जी क्षेत्रक हेतु प्रभावी आपूर्ति श्रृंखला में बाधक के रूप में कार्य करने वाले कारकों का सविस्तर वर्णन कीजिए।

Mission for Integrated Development of Horticulture (MIDH) provides holistic approach to ~~fruit to~~ ~~from~~ to develop linkage ~~between~~ from farm to plate.

Its main elements are:-

- 1) Providing good quality seed, fertilizers
- 2) Capacity building of horticulturalist
- 3) Use of technology so facilitate farmer like update about climate, disaster warning
- 4) Maintaining quality to promote export.
- 5) Developing linkages between farmer &

market.

It will lead to holistic development of horticulture sector as:-

- 1) It will improve quality & yield of produce.
- 2) Help to maintain sanitary and phytosanitary standards required for export.
- 3) ~~Do~~ Connect horticulturist with food producing industry under SAMPADA yojana.
This value addition will increase ~~to~~ their income.
- 4) ~~4)~~ Reducing ^{their} vulnerability of ~~of~~ from climate change by use of technology and best practices to tackle it.

factors that act as roadblock for efficient supply chain:-

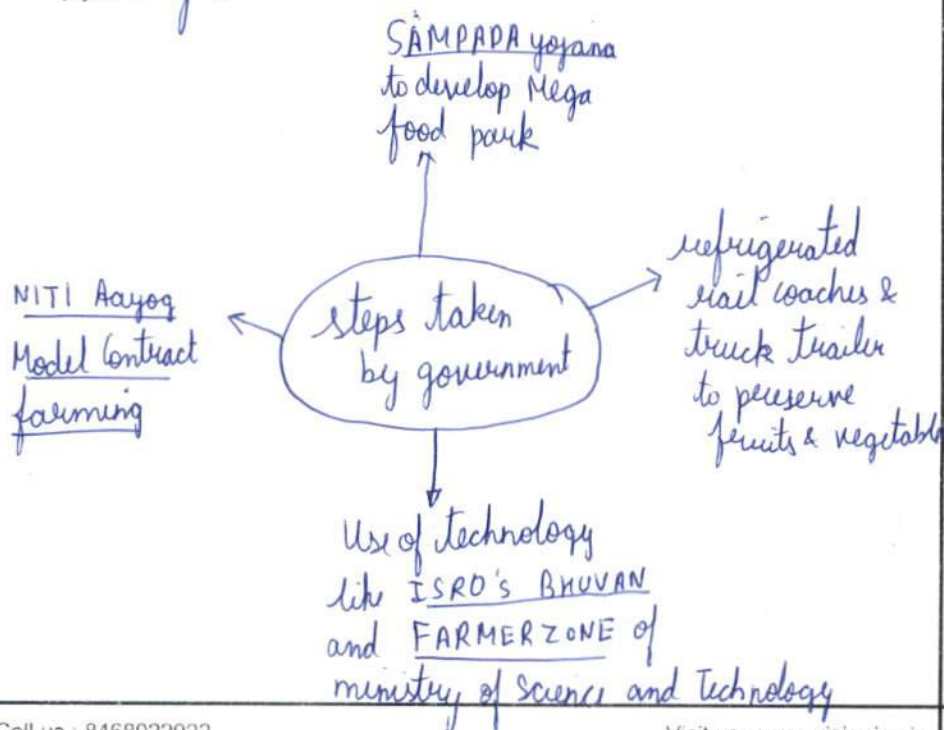
- 1) Weak ~~cultural~~ of implementation of contract farming. So either produce

doesn't live up to standard of ~~cooper~~ corporate
or they ~~do~~ refuse to procure it.

2) Most horticulturalist not large enough
to develop linkages with big corporates.
So linking them with corporates becomes
tough.

3) Poor transportation facility ~~lead~~ like
delay of train or traffic jam leads to
wastage of fruits and vegetable.

4) Poor cold storages and warehouses for
storing them.



19. It is argued that fertilizer subsidies have a negative impact on promoting Organic farming in India. Comment. Also, critically analyse the advantages of replacing direct benefit transfer in fertilizers with direct income support for farmers. (250 words) 15

यह तर्क दिया जाता है कि भारत में जैविक खेती को बढ़ावा देने में उर्वरक सब्सिडी का एक नकारात्मक प्रभाव रहा है। टिप्पणी कीजिए। साथ ही, उर्वरकों के लिए प्रत्यक्ष लाभ अंतरण के बदले किसानों को प्रत्यक्ष आय सहायता प्रदान करने के फायदों का आलोचनात्मक विश्लेषण कीजिए।

India has one of the highest ~~so~~ consumption of fertilizers ~~due~~ primarily due to fertilizer subsidy given by the government.

Fertilizer subsidy has following negative impact:-

- 1) It ~~A~~ Excess use of fertilizer leads to environmental damage such as pollution of water bodies due to agricultural run-off.
- 2) Nitrogen based ^{fertilizer} subsidy has ~~been~~ distorted the ratio of N, P, K in soil thereby harming soil health.

To Tackle these disadvantages, government is trying to promote organic farming

as it:-

- 1) ~~Does~~ It uses organic manure and not chemical fertilizer which makes it both friendly for environment and human consumption.
- 2) Organic farming will reduce cost of agriculture in India.
- 3) Organic farming will help to reduce the fertilizer subsidy bill of government.

But, organic farming has not been successful as farmers still prefer to use chemical fertilizer because they are cheap, reliable and show result in short term duration. So subsidy

on ~~Apant from~~ fertilizer do have ~~no~~ negative impact on organic farming but it is not the sole reason ~~to~~ behind its lack of popularity.

Direct Benefit transfer is direct transfer of money in the account of the beneficiary instead of giving him ~~for~~

Advantages

- 1) It curbs leakage and ensures that benefit reaches the targeted group.
- 2) It also reduces the diversion of subsidised fertilizer for non-agriculture use.
- 3) It gives autonomy to farmer to choose for themselves. ~~the best usage of m~~

Disadvantages

- 1) It doesn't take inflation into account. So with rising cost of fertilizer farmer will be able to buy less fertilizer.
- 2) Farmers don't have adequate knowledge of ~~for~~ use of fertilizer. So giving him autonomy can further deteriorate quality of soil because of inefficient use of fertilizer.

20. What do you understand by Seed Replacement Rate? Explaining the concept of breeder, foundation and certified seeds, highlight the major policy initiatives taken in order to address the challenge of quality seed availability to farmers. (250 words) 15

बीज प्रतिस्थापन दर (सीड रिप्लेसमेंट रेट) से आप क्या समझते हैं? ब्रीडर, फाउंडेशन और प्रमाणित बीजों की अवधारणा की व्याख्या करते हुए, किसानों के लिए गुणवत्तापरक बीजों की उपलब्धता की चुनौती का समाधान करने हेतु की गई प्रमुख नीतिगत पहलों पर प्रकाश डालिए।

Seed Replacement ratio is the ratio of number of certified seeds used by farmers to the total number of seeds.

$$\text{Seed replacement ratio} = \frac{\text{certified seed}}{\text{total seeds} \left(\text{field grown seed} + \text{certified seed} \right)}$$

Different types of seeds

- 1) Certified seed → It is a High yield Variety (seed) which has been modified and treated to give better improved quantity and quality of seed.
- 2) Breeder seed → It is the parent seed which is cross-breed with other variety of seed to yield an improved Hybrid.

Major policy Initiative

- 1) Forming seed Cooperatives → ~~These~~ The members of these cooperatives are provided good variety of seeds to improve yield.
- 2) Linking farmers with Agricultural universities such as Punjab Agriculture Univt University
- 3) Focus on R&D ~~like~~ by institutes like PUSA in Delhi to develop new high quality seeds ~~with~~ which are more pest resistant and have lesser harvesting time.
- 4) Signing MOU's with international organisation like IRRI (International Rice Research Institute) to open center in Varanasi.
This would boost access to cheap quality rice.

The ~~govt~~ Presently farmers are not able to achieve full ~~per~~ potential of our there land because of low quality of seeds.

So government should work in mission mode to provide good quality seed in order to double farmer income by 2022