

**INDIAN ECONOMY AND AGRICULTURE**

Time Allowed: 3 hrs.

Max. Marks: 250

Q.	Marks	Instructions to Candidate
1.	4.5	
2.	4.0	
3.	3.0	
4.	5.5	
5.	5.5	
6.	5.0	
7.	—	
8.	5.5	
9.	5.0	
10.	4.5	
11.	5.0	
12.	4.5	
13.	1.0	
14.	4.5	
15.	5.0	
16.	5.5	
17.	4.5	
18.	4.5	
19.	5.0	
20.	5.0	

1. Invigilator Signature

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Name SHUBHAM JAIN

Roll No. \_\_\_\_\_

Mobile No. \_\_\_\_\_

Date 30/08/2017Signature Shubham Jain

**REMARKS**

- Q1. High logistics cost is one of the major reasons for uncompetitive of Indian goods in global markets. In this reference discuss the significance of having multimodal logistic approach in India. What are challenges in present logistics sectors? Also discuss some of the major trans-boundary multimodal projects of India. (12.5 Marks)

Logistics play a very important role in determining the final cost of a product or service to end consumer. Therefore a multimodal approach becomes important to ensure efficiency of supply chain. While India's performance in Logistic Performance Index is one of the best in Global competitiveness.

1. Integration of various modes like railways, I.E.F., roadways, waterways, ports, air transport ensure optimal utilization of resources.
2. It ensures end-to-end integration with use of specialisation eg: shipping specialising in bulk cargo whereas road transport is suitable for doorstep delivery.
3. Makes the transfer of goods seamless and reduces cost and time of logistics.

The existing logistics sector in India has a myriad of challenges in front of it.

1. Due to high cross subsidisation in railways, freight charges are higher as compared to comparable economies. This puts undue pressure on road transport.
2. National highways only account for 2% of

roads in India but are responsible for 50% of goods transport -

(3) Waterways (inland and coastal) are not adequately developed in the country.

4. Warehousing and sorting facilities are still lacking particularly in agriculture sector.

In this regard, India has taken leadership role in some major trans-boundary multimodal projects like -

1. Kaladan Multi-modal Project - Connect

Indian coastline with Sittwe port in Myanmar. It uses sea, river and road transport to achieve integration of supply chain.

2. India - Myanmar - Thailand Trilateral Highway

3. Bangladesh - Bhutan - India - Nepal multi-modal transport agreement

4. Participation in International North-South Transport Corridor.

#### Conclusion:

- Write abt GST and impact

- Write some projects Home like - Diamond Quadrilateral, DMIC, Industrial Corridors.

good points  
Can do much better

- Q2. What do you understand by the term Industries 4.0? How it is going to impact the employment generation in India? What possible steps can be taken to avoid any adverse effects on employment generation from Industries 4.0? (12.5 Marks)

Industries 4.0 or the Fourth Industrial Revolution is the effect on manufacturing and service sector due to advent of Information and Communication Technology (ICT). IT, ICT and I.T.E.S will have a profound impact on the employment scenario in India.

1 Increasing automation of jobs will lead to reduction in low-skilled jobs eg. recently good developed COIN artificial intelligence system developed by JP Morgan Chase and IBM's Watson system showed remarkable accuracy in performing jobs which require considerable number of human work hours.

2. The efficiency and cost effectiveness of manufacturing process will increase which in turn will boost industrial growth and lead to job creation in other sectors eg. logistics.

3. The demand for highly skilled and high skilled workers is estimated to increase with large proportion of work force.

Having very low or no skill, the Industries 4.0

4.0

Remarks

will be a demographic disaster unless we invest heavily in skill upgradation.

1. India will need to take skill development

initiatives to a war footing.

2. Digital literacy can help bridge the digital divide in the country.

### Conclusion

- \* Write reports on Industrialisation and Unemployment creation
- \* Write about Heavy industries & MSME sectors impacts in long / short term
- \* Write some case studies to show the impact

Remarks

Q3. This Question contain 2 parts and both are compulsory:

- (a) Analyze the recommendations of Bibek Debroy committee. How this would impact the development of Railway infrastructure in India?
- (b) Indian Government recently established the Rail Development Authority. What is the objective of this authority? Will the setting up of the authority will help in tackling the challenges faced by Indian railways? (12.5 Marks)

*Remarks*

(B) Rail Development Authority (RDA) set up by the Government has the following objectives-

1. Recommend the fair pricing of freight as well as passenger charges which is commensurate with the costs of Railways.
2. Ensure fair play and competitive environment in railways for private sector participation.
3. Encourage private sector investment in railways.
4. Recommend unloading of unproductive assets of railways.
5. Recommend adoption of new technologies and promote innovation in the field of rolling stock and infrastructure.

The RDA is a significant step forward to tackle the challenges of inefficiency, poor operating ratio and allegations of favouritism in railways. Also, this step will ensure that passenger and freight charges are rationalised in railways which is a reform long overdue.

Ques: Who recommended RDA -

National Transport Dev. Policy, 2014  
Bibek Debroy Committee, 2015

Remarks

- Q4. What do you understand by Universal Basic income? What is the estimated fiscal impact of this scheme and assess its feasibility in Indian purview? (12.5 Marks)

Universal Basic Income is the ~~cost~~ unconditional transfer of a certain predetermined amount to every citizen or resident of a nation which is in addition to any income from any other source. Recently, The Economic Survey 2016-17 has discussed the issue of UBI in India and started a debate on the topic.

#### Fiscal Impact of UBI in India -

1. UBI can help improve the efficiency of service delivery as it will remove the leakages in schemes like PDS and MGNREGS.
2. This will reduce fiscal burden on government according to Economic Survey, for providing a UBI comparable to equivalent to poverty line (Swarnajayanti), an amount of Rs 1090 per month will be required. This will amount to 13% (approx) of the GDP of country which is the total size of Union Budget. Hence, it will be a huge fiscal burden to provide poverty line equivalent UBI.
3. UBI will bring all the beneficiaries into the fold of banking sector which has a multiplier effect on economy in the long run.

Remarks

Feasibility -

1. The BY. of GDP estimate is much higher than what the government is spending on subsidies (21% of GDP). Hence not feasible fiscally.
2. It will require a major push to financial inclusion in the economy and the rural banking infrastructure is still lacking.
3. As states are a major participant in welfare schemes, hence any withdrawal of schemes and implementation of UBI will require prolonged discussion and debate with between centre and states.

Hence, the time is not right to implement UBI in India. But certainly a discussion on the issue is warranted and certain pilot projects like in Madhya Pradesh by UNICEF with help of SEWA has shown positive results.

Write about Finland's ~~on~~ UBI initiative

Remarks

Q5. This Question contain 2 parts and both are compulsory:

- (a) Indian service sector, especially IT sector, has been the main anchor of growth and employment in the 21st century. However, in recent past, the Indian IT sector has been in news for lay-offs and not for job creation. What are the reasons for this? What corrective steps needs to be taken in this regard?
- (b) Indian IT sector has been beneficiary of H1B visa allowances and liberal visa policy of USA in case of highly skilled employees. Examine how Indian IT industry is going to be affected following the strict visa policy under Trump regime.

(12.5 Marks)

(a) Indian Services sector in the recent past has been facing slowdown and reports of worker lay-offs have surfaced. There are several reasons for this trend -

✓ Global slowdown has reduced the overseas demand of Indian services.

2. Competition by other global services hubs like Vietnam and Taiwan has put pressure on Indian services sector.

3. Challenges faced due to slowdown in domestic growth which has reduced domestic consumption.

In this regard, a boost to services sector is required to revive it.

1. Start-up policy can help bring new services into the mix and improve efficiency.

2. Negotiations on Service Agreements like FTA with European Union must be pushed forward.

3. The issues like H1B visa of USA and visa issue in Australia need to be handled diplomatically.

Remarks

(b) Indian IT sector has benefitted immensely from H1B visa allowances and visa policy of USA. India became the largest beneficiary in terms of no. of professionals. With restrictions being imposed on H1B visa allowances and a cap on number, the Indian IT sector will face severe challenges -

1. The overseas projects of major IT giants like Infosys, Wipro, HCL will take a hit and may have to wind up their projects.

2. Future export potential may be reduced to economies of U.S.A. and EU.

3. With slowdown in services sector the unemployment in the sector may increase.

But Indian IT sector can address

~~N. govt~~  
 Attempt these challenges by pursuing other markets  
~~Keep it like~~ like Latin America, Middle East, Africa etc.  
 which have been hitherto unexplored. Also,  
 bilateral negotiations between the two countries  
 can help achieve certain relaxations for the

Indian industry -

- Good structure, good knowledge
- Give example of Japan in reversal of Brain Drain offer USA protectionist policy

Remarks

- Q6. In recent there has been a spurt in digitization. Can digitization help in bringing inclusive growth in India? What steps should be taken to realize the goal of inclusive growth in digital economy? (12.5 Marks)

Digitization has become the buzzword in the economy since the demonetization of Nov 2016. Digitization of financial services can help to achieve the larger goal of inclusion in the society.

Linking of Jan Dhan Accounts with Aadhar will help in bringing people into the financial fold and will ensure effective and corruption free service delivery through initiatives like Direct Benefit Transfer, Encouraging digital payments and promotion of government initiative like Aadhar Pay, BHIM app, UPI will ensure more and more people use banking services.

Provisioning of services like e-medicine, e-education and information related to agriculture to farmers in rural and remote areas.

Education initiatives like Massive Open Online Courses (SWAYAM) will help in realizing the goal of inclusion in education.

To realise the goal of inclusive growth in digital economy, following steps are required.

1. Economic Digital Literacy is an important first step in a country where digital divide is significant and increasing.

2. Improvement in infrastructure like broadband connectivity, telecommunication, mobile internet, computers to ensure equitable access to digital resources.

3. Initiatives like Digital India, Bharat Net, Rural Digital Sakshee Abhiyan (DISHA) will play a key role in digital inclusion.

4. A cyber security infrastructure and ensuring protection of public data is a must to improve public trust in digital economy.

### Conclusion

Write

: Governance

G2C

G2G

G2B

50

Remarks

- Q7. RBI has been issuing banking licenses under differentiated bank system Wholesale and Long-Term Finance (WLTF) banks. What is the need of such specialized banks? Discuss the scope and benefits of having WLTF banks. (12.5 Marks)

**Remarks**

**Remarks**

- Q8. Government launched Pradhan Mantri Fasal Bima Yojana (PMFBY) to reduce the vulnerability of farmers from natural calamities and ensure sustainable farm income. While highlighting its major provisions, also discuss the performance and challenges it is facing while implementation. (12.5 Marks)

Crop insurance is a major issue in India due

to high dependence on rain for irrigation and  
the uncertain nature of monsoon and increasing  
vagaries of nature due to climate change.

Pradhan Mantri Fasal Bima Yojana (PMFBY)  
was an important step in this direction.

Major Provisions -

1. It provided for crop insurance by state insurance companies for both pre and post harvest damages.
2. The subsidy on premium payment is to be shared equally between centre and states.
3. Farmers will have to pay 2% of premium on Kharif crops, 1.5% on Rabi crops and 5% on Horticulture and plantation crops.
4. Use of technology like drones, remote sensing satellites to estimate crop yield and new methods for determining losses for insurance claim.

Performance -

1. A significant proportion (30%) of area sown

good

Very good  
white  
priority  
wise  
key  
points

Remarks

Area has been brought under the scheme.

2. Significant insurance claims have been paid to farmers in the last three years.

3. The cap on total insured amount has been removed and farmers are now insured against post-harvest losses too.

### Challenges:

1. Delay in payments of insurance claims.

2. The states are liable to pay 50% of subsidy on insurance which is getting delayed.

3. Often insurance companies do not maintain proper land records or yield date and therefore rely on banks for payments of subsidies by farmers. Thus, the scheme has become loan insurance instead of crop insurance.

4. The procurement of mobile phones and new technology to determine crop losses has not taken place.

### Conclusion:

- Write solution if you have time.

- Name: NIAML MNIAS

Remarks

- Q9. Tourism is one of the major economic activity in many advanced nations, though India is catching up in the sector, however, its potential is still untapped. Discuss why India's tourism potential still largely untapped? (12.5 Marks)

India's tourism sector has huge potential when it comes to contribution to employment generation and GDP growth. With rich and diverse culture and scenic beauty India can become a tourism powerhouse. But certain challenges have marred its potential -

1. Transport infrastructure in the country is very poor and this creates problems for tourists.
2. Lodging and hospitality sector is also underdeveloped as compared to developed nations where initiatives like AirBnB have been a huge success in promoting tourism.
3. Law and order issues and concerns regarding women safety have deterred tourists, particularly foreign, to visit India.
4. Development of tourist sites and their promotion is still below potential.
5. Pollution and cleanliness in general create a major hindrance in tourist activity.
6. Concerns regarding biological diversity. And misuse of eco-tourism activity has

Remarks

led to strict ban by courts.

7. Trained and skilled manpower in tourism sector is also lacking.

Thefore, India has a huge untapped tourism potential in terms of cultural, religious, architecture, adventure, medical, education, dance, music Tourism. If these challenges can be addressed, then we can truly realise the values of ~~All~~ Incredible India.

- Write Indian Tourism Potential through Map
- Write UNWTO Report, Tourism Report of WEF
- Very good structure, good pts.
- 3As for Tourism - Access, Accommodation, Amenities
  - for the purpose of -
  - "Tourism for All Reasons"
  - Tourism for all Seasons"

- Q10. Niti Aayog recently projected a compound annual growth of about 8% of Indian Economy and its transformation by 2031-32. In this light discuss, what policy actions are required for attain and sustaining this level of growth? (12.5 Marks)

Indian economy has been become the fastest growing major economy in recent years, overtaking China. The Niti Aayog's projection of 8% growth till 2031-32 is predicated on certain important structural and regulatory actions needed in the economy.

1. Ease of doing business: The regulatory and govt compliance challenges and issues of land acquisition, permits, business establishment, environmental clearances etc. all need to be streamlined to bring India among Top 50 countries in World Bank's EDB Index.

2. Infrastructure: bottlenecks like transport and power need to be addressed by giving push to inland waterways reduction in freight charges, focus on increasing removals to every and so on.

3. Labour laws still pose a major challenge in foreign direct investment in India. They must be rationalised by consultation with state government and introduction of minimum wages.

Remarks

4. Skill development initiatives like Skill India campaign must be pushed forward to ensure that the demographic potential is realised to its fullest potential.

5. Regulatory challenges like TRAI issue of mobile network operators, cancellation of 2G licenses, tax network in the country (Vodafone case), environmental regulation must be clear resolved at the earliest and a clear policy must be put forward.

### Conclusion

6. Tax Reforms

7. Banking Reforms

8. Foreign Trade Policies 2015-16

Remarks

- Q11. Indian manufacturing products are uncompetitive in global market due to their low quality and standards, especially the exports from MSME sector. Discuss the issues pertaining to low quality of Indian manufacturing. Also discuss the significance of Zero Defect - Zero Effect (ZED) scheme in this regard. What else can be done to improve the quality and standards? (12.5 Marks).

The quality and standards of Indian manufacturing units, especially the MSME sector, have been criticised frequently in global market. This has reduced their demand and made them uncompetitive. The

#### Issues -

1. Use of outdated technology by small units due to unavailability of capital for modernisation.
2. Poor regulatory mechanism and quality standards like Good Manufacturing Practices (GMP) are not adhered to.
3. Poor levels of skill development and shortage of skilled professionals in this field.

#### Significance of Zero Defect - Zero Effect (ZED) -

ZED scheme can help significantly reduce the manufacturing defects on the long production line while at the same time reducing the effect

#### Remarks

on the environment & by using more modern and environmentally sustainable processes.

The scheme aims to reduce the defects to zero while also making the process environment friendly.

To improve quality and standards -

1. Skill development and training of professionals in the field of GMP.
2. Strict adherence to regulatory standards and random checks to ensure compliance.
3. Bilateral agreements with countries like U.S.A, Germany to improve infrastructure.

India :- Conclusion.

- Write ✓ problem of Violence in NE & J&K, Naxalism etc, also affect industrial growth
- ✓ PPR policy and patents etc

Q12. India has been facing twin balance sheet problem with Indian characteristics. What are Indian characteristics and what steps should be taken to find out the solution? How the recently passed ordinance, empowering RBI, is going to tackle the situation?

(12.5 Marks)

The twin balance sheet problem lies in where the companies and businesses are over-leveraged and at the same time the lenders are facing huge NPA's, has some Indian characteristics which make it unique in the world.

It is coupled with a period of high growth

( $>6\%$ ) which is unusual.  
It has not affected the growth of the economy significantly whereas such high NPA's generally lead to stagnation of economy.

The public's trust in banks has not been eroded and no bank runs have been noticed.

Steps to be taken -

1. Banking reforms - Based on the recommendations of the P.J. Nayak Committee significant changes in ownership and administration of banks are required.

2. Capital infusion in banks by Indradhanush framework.

3. Resolution of NPA's by mechanisms such as P.S.A.R.A (Public Sector Asset Rehabilitation Agency).

Remarks

Ques 4. Insolvency and Bankruptcy code to ensure quick, easy and effective exit mechanism for failed businesses.

The recent ordinance which amended the Banking Regulation Act and empowered the government to direct the RBI to ask banks to start Insolvency proceedings against defunct firms is a significant step in this regard.

Recently 12 major firms have been notified under this provision and NCLT is deciding on their fate. Write provisions clearly in point form.

Therefore, such provisions will resolve quick and cost effective resolution of NPA problem of the bank and give a boost to the growth engine.

Keep it up.

✓ good  
✓ attempt

Remarks

Q13. This Question contain 2 parts; both are compulsory:

- (a) World Bank has been changing its spending pattern from infrastructure to healthcare. How does this change augment the efforts toward achievement of SDG and improved welfare?
- (b) The funding available with the international humanitarian spending agencies, like World Bank, UNCTAD, etc. is far less than optimum. Examine the reasons for such shortfall and suggest how spending deficit can be overcome.

(12.5 Marks)

(a) The change in spending pattern of World Bank can lead to improvement in the realisation of SDG goals pertaining to Health (Goal 3) and overall human development.

I World Bank is undertaking projects in healthcare like immunisation drives and construction of public health infrastructure in the country countries around the world.

Remarks

**Remarks**

- Q14. BRICS and AIIB has been two emergent institutions, which can challenge the hegemony of Bretton Woods institutions. However, for that to happen, China requires cooperation of the other developing countries rather than establishing hegemony over the new institutions. Critically analyze. (12.5 Marks)

The Asian Infrastructure Investment Bank (AIIB) and BRICS's New Development Bank (NDB) have become stalwarts of the new world order lead by emerging economies and challenged the hegemony of Bretton Woods institutions. They are emerging as a significant source of infrastructure funding and an alternative to the West dominated World Bank, IMF and ADB. But China's dominance in these institutions has been a sore point for participating nations.

1. Nations which have bilateral conflict with China like ~~Phil~~ South China Sea littoral nations are apprehensive of participating in these institutions.
2. These institutions are seen by some as implementing mechanisms for Belt and Road ~~group~~ initiative and concerns of big hidden Chinese agenda.
3. Giving a high pedestal to the Chinese currency through these institutions may not be in the best interest of countries like India who face dumping at Chinese hands.

Remarks

Cut  
short

4. China is also the largest contributor and share holder in these institutions -

Although These are valid concerns, but the structure of NDB ensures that all five members have equal voting power in respective terms of contribution. Also, as of now NDB and AIB remain relatively small in terms of lending corpus as compared to WB and ADB. Hence, China though appears to be establishing a hegemony in these institutions, their success would only be ensured when cooperation among members is guaranteed.

Next challenges in front of China  
to challenge \$ hegemony (Bretton Woods)

Good  
Attempt

Remarks

- Q15. Despite the fact that, Food Processing sector is recognized as sunrise sector and paid ample attention in recent years, the recent statistics suggest that many of Mega food parks, which were announced in the scheme have either not been established or they are on the verge of shutdown. Analyze the factors behind this trend; also suggest what should be done to reverse the trend? (12.5 Marks)

Mega Food Parks (MFP) are an important component of the overarching plan to give a boost to food processing in the country. But the analysis of recent trend shows a grim state of affairs for these MFPs. Why FPL is grim for these MFPs?

#### Factors behind this Trend-

1. Regulatory challenges remain a major hurdle which cause significant time and cost overruns due to delay in clearances.
2. Funding issues also remain as the government has been slow in release of funds to realize the projects.
3. The success of MFPs depends on farmers' ability to form cooperatives and pool their resources. But this has not happened in the country and agriculture remains fragmented.
4. The Hub and Spoke model of MFPs relies on removal of intermediaries at village level but they continue to be a dominant force in agriculture.
5. The processed food by Indian companies has

Remarks

V. faced certain challenges in overseas markets (Alphonso mango in EU) which has deterred private investors from the scheme.

What should be done

1. Regulatory clearances should be streamlined and brought under a separate office which will also ensure compliance to GMP and HACCP standards for global recognition.
2. Land consolidation, contract farming and former cooperatives need to be promoted to enable MFPs to procure quality produce at efficient prices.
3. Funding delays for the scheme should be addressed at the earliest.

Write on Conclusion

- \* SAMPAWA
- \* National policy on food processing
- \* Soil bank by NABARD
- \* Integrate R&D dev. Policies with FPD

Remarks

- Q16. Recent Farmers' agitations and suicide once again highlight the discrepancies in inclusive development. In this reference, analyze the factors behind farmer's suicide with a reference to NCRB report. What steps are needed to break the vicious cycle?

(12.5 Marks)

Recent farmers' agitations in Maharashtra and Madhya Pradesh and NCRB report on farmer suicides have brought the plight of the farmer group to the fore. The factors responsible for continued farmer distress even in years of good monsoon are -

1. High indebtedness - NCRB report claims that indebtedness is the cause of farmer suicide in more than  $50\%$  of the cases. The dependence on informal sources of credit is still high.
2. Marketing - Agricultural marketing in the country is still highly dependent on middlemen like input dealers and contractors which does not allow farmers to realise proper price for their produce and they end up getting only  $25\%$  of final market price.
3. Irrigation facilities still lacking for close to  $50\%$  of net sown area. This pushes farmers in debt in monsoon deficit years.
4. Low level of mechanisation and scientific cultivation leads to poor per hectare yield.

**Remarks**

5. The procurement by government at MSP has not taken place for crops other than paddy and wheat. This has led to distress sale even in years of bumper production due to price crash.

To break this vicious cycle following steps must be taken:

1. Improve drip and sprinkler irrigation in arid and semi-arid regions like Maharashtra and Karnataka
2. Marketing reforms in form of e-APMC and model APMC Act released by NITI Aayog.
3. Bringing farmers towards institutional credit is important to reduce interest burden. For this modernisation of land records and tenancy reforms in the country are important.
4. Promote farmer cooperatives to increase their bargaining power at Mandis.

### Conclusion

Write:

- \* MSP - Swaminathan Com.
- \* FCI - Sharat Kumar Com.
- \* Doubtly - Ashok Dalwai Com.  
Milone byorn

Remarks

Q17. Micro irrigation can be way out for rainfed agriculture and small land holding in India.

In this reference, discuss the advantages associated with micro irrigation, initiatives taken by government and challenges associated with it. (12.5 Marks)

→ Definition? types?  
 Micro irrigation can serve as an important reform in the agriculture sector of a country like India where still close to 49% of area is rainfed and land holding size is very small.

### Advantages:-

1. Provides an effective means to realise "Har Khet Khet ke Paani" and "Per drop, more crop" through judicious use of water in a water deficit scenario.
2. Protects the soil from salination due to excessive irrigation.
3. Prevents depletion of ground water and avoids wastage of water due to runoff or evaporation.
4. In certain cases, can also lead to higher yield than conventional irrigation.
5. Can serve as an effective means of rainwater harvesting and reduce dependence on conventional methods like canal or tube wells.

### Initiatives taken by Government -

1. A new micro-irrigation has been set up in good this year's budget under NABARD to facilitate creation of micro irrigation framework

### Remarks

in the country.

2. The initiative of 'Per drop, more crop' has also been undertaken to increase water use efficiency in irrigation. P.M. Kisan Sichayojana

### Challenges -

1. Higher initial cost due to network of pipes and sprinklers for farmers.
2. Poor awareness among farmers also limits its usage.
3. Due to skewed cropping pattern and rice being grown in drier parts due to high MSP; so micro irrigation cannot serve the purpose in such situations.

### Conclusion

- RKY
- Integrated water mgmt program
- 

**Remarks**

- Q18. The Vulnerability of farmers is not just due to natural vagaries, but also due to defects of public procurement policy. Analyse what should be done to reform the public procurement system? (12.5 Marks)

Public procurement system is a major contributing factor towards cropping pattern in the country. The government's Minimum Support Price declaration has a significant bearing on the sowing habits of the farmers. Therefore, to reform agriculture, reforms in Public procurement policy are a must. <sup>Avail judgement of point in introduction</sup>

1. Declaration of MSP should be done well in advance of the sowing period so that farmers can make an informed decision.
2. Procuring a crop at MSP by the government must be undertaken. At present several crops other than rice and wheat are not procured by the government due to paucity of storage infrastructure.
3. Support to farmers should be provided in terms of seed storage, sorting and warehousing facilities so that they do not undertake distress sale to traders and input dealers.

~~Given~~ Shanta Kumar Committee recommendation regarding Food Corporation of India should be implemented

Remarks

like end to end computerisation of supply chain and privatisation of ~~all~~ warehousing infrastructure.

5. System of Negotiable Warehousing Receipts should be implemented when government ~~buys~~ procures a farmer's produce for proper storage.

6. MSP for all crops should be such decided as to facilitate climate smart agriculture and according to water and soil capacity of the region.

\* Chota Swaminathan Committee Report

\* Price Stabilization Fund

\*

Remarks

Q19. What is precision agriculture? How precision agriculture can help in improving the resource use efficiency in agriculture, with special focus to irrigation? (12.5 Marks)

Precision agriculture is the practice of determining the exact resource requirements of each crop in each region and supplementing these resources precisely to avoid excess and wastage of inputs like water, fertilizer, seeds etc.

In India, where we face challenge of excess use of fertilizers and irrigation causing Causing degradation of soil, precision agriculture is important.

1. It will check soil salination and degradation due to excessive pesticides and fertilizers.
2. Cropping pattern of the country will be in accordance with the water availability e.g. pulses and coarse cereals should be grown in water deficit regions as against the current practice of growing wheat and barley.
3. It will help farmers to rationalise their cost of production by knowing information about soil health and moisture.
4. Irrigation is still a challenge in the country with significant portion of land dependent on monsoon rainfall. Precision agriculture will

Remarks

enable judicious use of water by adopting practices like rain water harvesting and drip and sprinkler irrigation.

5. Precision agriculture also focusses on use of technology for determining the resource use efficiency and adopting climate smart practices like matching to conserve moisture.

### Conclusion

- Write:
  - \* Satellite Tech, Remote Sensing, Sensors
  - \* Integrated Nutritional Mgmt
  - \* Integrated Pest Mgmt
  - \* Soil Health Cards

good point

Remarks

- Q20. How pink revolution can supplement farmer's income? Critically analyse, how the developments of recent years coupled with steep inflation in animal feed prices have impacted the development of sector? (12.5 Marks)

Pink revolution refers to a major change in the livestock and animal husbandry sector which are raised for meat, particularly poultry.

#### Farmer's income -

1. Poultry can help hedge the farmer's income against crop failure due to failed monsoon as they require worse grains as feed.
2. The added income can raise the level of standard of living and reduce farmer distress.
3. Due to changing food habits, the demand for chicken is increasing particularly in urban areas. Thus, suburban farmers can benefit from this.
4. Poultry meat and egg can both serve as excellent sources of income.

There have been certain important developments in this sector which have put its future in jeopardy.

1. The bans by certain nations Indian bovine meat, brooms, poultry etc. due to fear of pesticide use and diseases: e.g. Ban by Japan on Indian brooms.

Remarks

2. Spread of avian influenza in certain parts of India has lead to large scale panic and culling of birds.

3. The increase in prices of bird feed and animal feed prices due to inflation i.e. agriculture has increased the cost of production for farmers.

~~good points  
after going on  
Keel~~ Although, these challenges have somewhat hampered the growth of the sector, but the future potential of an impending but revolution are huge and can address the issue of farmer distress to a large extent.

\* Write

- Pashudhan Yojana
- Gokul Mission
- Integrate it with Green Revolution

Give:- Case study & examples

→

**Remarks**