



APSC Mains 2023 TS - 13 (GS Paper 3)

Duration – 3 Hrs

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(Please fill your details correctly)

Medium:

English ☐

Assamese ☐

INDEX NUMBER			INSTRUCTIONS
Q.NO.	Maximum Marks	Marks Obtained.	
1	10		Please read each of the following instruction carefully before attempting the questions: - There are TWENTY questions printed in ENGLISH. - All questions are compulsory. - The number of marks carried by a question/part is indicated against it. - The answers must not exceed 150 words for 10 marks and 250 words for 20 marks. - Content is more important than the number of words. - Answers must be written in the medium authorised 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 authorised one. - Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off
2	10		
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14	15		Remarks: Signature of the Student:
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19	15		
20	15		
TOTAL:	250		



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Brief report of Performance Evaluation of student in the paper

	Poor	Average	Good	Very good	Excellent
Understanding the context and demand of the questions					
Relevancy of the content					
Structure and flow of the answer					
(a) Introduction					
(b) Body					
(c) Conclusion					
Subject knowledge					
Language of the answer					
Presentation					
(a) Underline to the keywords					
(b) Use of flowcharts or diagrams					
(c) Paragraph limits and overall					
Understanding of directives					
Factual correctness					
Overall performance					

Detail Feedback

Q1. The Horticulture sector, though has potential to transform agriculture landscape of country, is beset with several challenges. Examine. (10 marks/150 words)

With the changing agrostructural scenario and diversification of Indian agricultural landscape, horticulture sector assumes tremendous significance in the current context. Yet, the ~~agg~~ sector is faced with numerous problems that have prevented it from contributing significantly towards agricultural revolution of the country.

Answer

Challenges faced by the horticulture sector are

- Lack of proper irrigation facilities in the majority of cultivable land of the country.
- poor infrastructure and storage facilities of the crops

- lack of technical knowhow about the cultivating season and sowing techniques of the farmers.
- lack of proper interest among the farmers to turn to horticulture sector instead of traditional cereals like rice and wheat.
- Underdeveloped food processing industry.

Way forward

- Proper investment in the storage facilities across the country.
- Awareness campaign among the farmers regarding benefits of horticulture.
- Institutional and financial support, to avail credit to farmers.

Thus, with proper awareness campaign and necessary structural and institutional revampment, horticulture sector in India have tremendous potential in altering the agricultural landscape of the country.

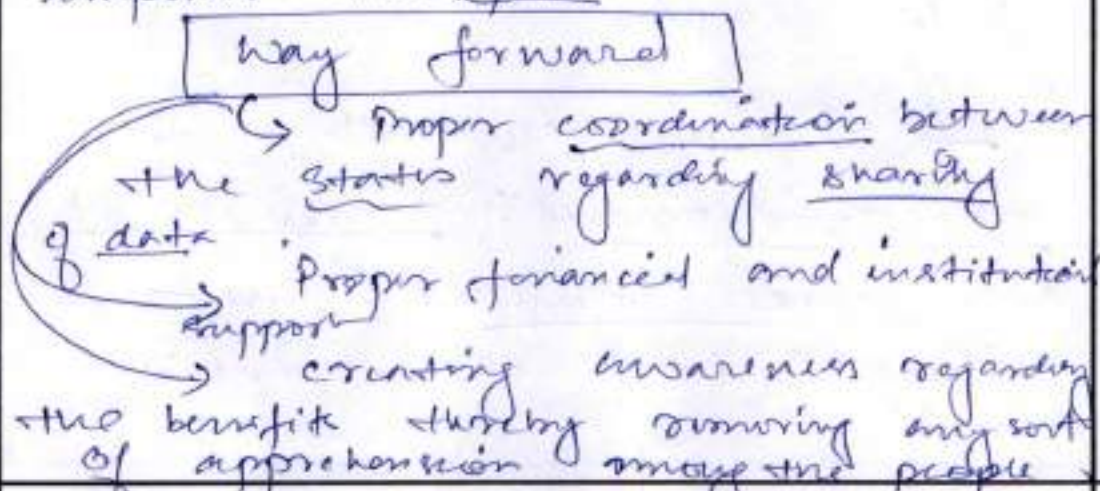
Q2. The 'One Nation, One Ration Card' (ONORC) scheme is a huge step forward in empowering the poor and disadvantaged, yet it faces obstacles in terms of design and implementation. Discuss. (10 marks/150 words)

'One Nation One Ration Card'
 is one of the major milestone in empowering the disadvantaged sections of the society. It has drumendous potential in bridging the economic inequality among the society as well as elevating millions from poverty leading to overall socio-economic development of the country.

Obstacles regarding its implementation and design

- Lack of inter state coordination regarding the Public Distribution system
- Lack of credit and banking facilities among the beneficiaries.
- Absence of relevant data pertaining to entire

- migration among the states.
- Rampant corruption in the delivery of the ration items.
 - fake beneficiaries provide a major obstacle in its nation wide implementation.
 - Sense of indignement of local culture among the native people of the state towards the immigrants of other states.
 - Leakages at multiple stages of delivery.
- In spite of these challenges, one-nation-one ration card is the need of the hour to empower the poor.



Q3. Climate change is a threat to food and nutrition security of the world. Examine the impact of climate change on agriculture. Suggest ways to make agriculture sustainable and climate resilient. (10 marks/150 words)

Climate change is one of the biggest threat facing the man kind in today's ever changing world. India being an agricultural country is faced with imminent threat from climate change in its agricultural landscape.

Impact of climate change on Agriculture.

⇒ climate change has seriously impacted the cycle of seasons, altering the cycle of major Indian crops.

→ Indian Agriculture is still monsoon dependent. Risky droughts and scarce rainfall are direct impact of climate change, which

has severely impacted the agricultural output.

→ Frequent Tsunamis and cyclones have majorly dented the agriculture in the coastal region of the country.

→ Climate change has impacted the monsoon arrival in the country, creating problems in agricultural forecast by the concerned authorities and ICAR.

→ Unusual cycle of El Niño and La Niña has caused massive agricultural failure over the recent years.

→ It has made agriculture more water and cost intensive.

Ways to make agriculture sustainable

• Adequate investment in ICAR and farming technologies.

• Scientific training to Indian farmers regarding changing crop cycle.

• Integrated farming system.

• Diversification of crops with focus on multicropping.

• Proper irrigation and drought resistant mechanisms.

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Thus, with proper infrastructure and scientific development to the farmers, agriculture can be made sustainable to a large extent.

Q4. The food processing industry has emerged as a high-growth and high-profit sector due to its immense potential for value addition. In this context, discuss 'Production Linked Incentive Scheme for Food Processing Industry. (PLISFPI)'. (150 words/10 marks)

Food Processing Industry is one of the major upcoming industry that have tremendous potential in empowering the food security of the poor and marginalised. It provides a great scope in enhancing the food security of the nation as well as swamping the agricultural scenario of the country.

'Production linked' incentive (PLIS) scheme for Food Processing industry is one such step towards harnessing its potential.

→ government has planned to incentivise the industries after one certain unit of production through P21.

→ It has provided them with subsidy for further production.

- PLI scheme has come up with tremendous employment opportunities in the food processing sector as more and more production units are set up.
- It has created the space for innovative research and development regarding production, storage and fortification of food with nutrients.
- It has created more demand for raw materials for the processed food, thereby increasing their farmers income.

Thus, India, with its agricultural background has to utilise its potential regarding food processing sector. Food Processing Industry and PLI enhanced production has tremendous opportunity to enhance the food security of the nation as well as create employment and other opportunities leading to socio-economic

Q5. Solar power sector is not only leading the mitigation efforts against climate change, but the innovations in solar power can also accelerate adaptation of agriculture to a new reality of changed climate. Discuss. (10 marks/150 words)

With changing agricultural ~~for~~ scenario owing to climate change, innovation, technology and infrastructural development must go hand-in-hand for achieving sustainable agriculture in the upcoming future.

Solar power has come up a long way in leading the mitigation efforts against climate change.

Contribution of Solar Power

- It has acted as an renew
- It being a renewable source of energy has put less pressure of the exhaustible resources of the earth.
- Solar powered batteries and panels have changed the energy

scenario to become more sustainable.
 → Solar power driven engines
 and farm mechanical equipment
 have reduced the dependence
 of agriculture on conventional
 energy resources - which are
 major attributors to climate change.

Innovation in Solar
Power can even accelerate the
 adaptation to new reality of
 changed climate.

→ Solar Parks needs to be set up
 with proper infrastructure to cater
 to the needs of the agriculture.

→ Solar Driven electricity
 and solar driven electric vehicles
 can contribute significantly to
 sustainable mechanisation of
 agriculture.

→ Innovation in Solar Power
 will make agriculture less dependent
 on thermal Power Plants.

Thus, moving towards renewable energy is
 the need of the hour and solar power has

Q6. Biotechnology is often seen as a revolutionary intervention, but the applications of biotechnology have had mixed socio-economic implications. Examine. (10 marks 150 words)

Biotechnology is a revolutionary intervention in the field of life sciences, which have changed the outlook of bio sciences forever.

Innovation of technology in life sciences has revolutionised the field of medicine, life sciences and as well as agriculture.

Significance of Biotechnology

⇒ Biotechnology has made agriculture more dense and sustainable.

⇒ It has enabled the world to bring green revolution with genetically modified crops like cotton etc.

⇒ Biotechnology has dramatically elevated the potential of animal

husbandry sector with developing
new hybrid cons and other animals

→ It has enhanced the food security of the nation.

→ It has made revolutionary
leap in the medical scene saving
lives of million.

yet it have some
negative connotation also in the
society if Negative Implication

→ Interbreeding of animals
is considered unethical.

→ cloning and inbreeding
is considered as interfering with
the creatures right to live with
dignity.

Recent technological advances
has created apprehension among
the people regarding their privacy
and biometric information

In spite of such mixed
social economic implication,
Bio-tech has largely been elevating
mankind and with proper legislative will
its negative connotation

Q7. Green hydrogen can be the engine of a sustainable economy, but it would require crossing financial and technological barriers. Discuss the reasons for increasing interest in green hydrogen and challenges in its adoption as the fuel of the future. (150 words/10 marks)

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Q8. Persistence of various cross-border threats and absence of robust intra-regional trade with neighbouring countries have forced India to employ a unilateral approach to border management. Highlight various cross-border threats faced by the country and explain how they can be managed in an effective manner. (10 Marks/150 words)

India assumes one of the most strategic locations in the Indian Subcontinent. It shares international boundary with China, Pakistan, Bangladesh, Myanmar, Nepal and Bhutan. With the history of the subcontinent of bifurcation of the Indian Subcontinent owing to colonial rule and partition, India has had to inherit some hostile neighbours which has provided with serious cross border threats.

Various Cross Border threats

- Pakistan has been the enemy country ever since independence.
- Pakistan through ISI have been financing cross border terrorism.

or J&K.

→ It has also created fake currency notes financing terror related activities across the border.

→ Radicalisation of youths in Kashmir.

China →

→ Chinese aggression policy

→ Chinese intervention in India's sovereignty and financing arms to terror outfits in North-East.

Bangladesh

Porous border

Radicalisation of youth

infiltration and communal violence

Myanmar

→ Safe haven for insurgent groups of N-E.

→ drug smuggling and human trafficking.

Given border threats need to be effectively managed to secure the integrity of the country.

• Proper border management.

◦ concealing the borders with electronic fence.

◦ Stringent laws regarding fake currency notes.

◦ Integrated Police force with other CAF.

◦ Capacity building of the security

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at large
way is

• All these can go a long way in effective management of threats securing the integrity of the country.

Q9. When inclusive growth is the goal, the approach cannot be anything other than education, skilling and job creation. Critically examine the success of various post-liberalization policies of the government in this regard. (10 marks/150 words)

India had taken a giant leap towards becoming a global economy by opening its economy in 1991. The liberalisation, privatisation and globalisation policies of 1991 have provided India a economic base upon which India has marched ahead towards inclusive growth elevating the socio-economic status of the country.

LPU reforms have enabled India to make giant strides in the field of education, skill development and employment generation.

Government has made significant contribution towards.

Digitalisation. Post 1991, India saw Information Technology (IT)

revolution. However IT revolution has further widened the economic disparity of the people. IT revolution post 1997 saw the urban population growing beyond bounds whereas rural folk owing to digital illiteracy lagged significantly behind.

→ government focussed more on employment generation by welcoming FDI and foreign investment and stock market.

FDI inflow has brought India with much needed forex reserve, but growth didn't converge with employment in India as India has one of the highest unemployment rate in the world (45%).

→ Private schools and institutions have taken over the school education in primary level which have resulted in abysmal performance of the government schools over the recent years in majority of the country. Thus, India have truly not embarked its goal of inclusive development post 1997. Reforms needs to be done in the education and other related sector to make India a truly developed country.

Q10. Female workforce participation rate (FWPR) remains low in India despite economic development and rising education levels of women and girls. Discuss the reasons behind low Female workforce participation rate in India. Suggest measures for improvement. (10 marks/150 marks)

Female workforce Participation rate (FWPR) is one of the lowest in India. As per World Bank Data, (FWPR) is as low as 29% compared to 47% of the advanced and developing nations of the world.

Such abysmal low FWPR can be attributed to many factors.

Causes of low FWPR

- Patriarchal mindset of the country contributes to less women joining the workforce.
- Improved disposable income among the rural household have made women confined to household chores.
- COVID Pandemic have caused the rural women folk to drive out of

their work.

- Mechanisation of agriculture have led to defeminisation of agriculture in context of primitive farm techniques.
- Poor digital literacy among rural women
- Poor education of girl child in rural India
- Lack of managerial opportunities for women at large in corporate sector.
- Incidences of sexual offences at workplace

Measures for improvement

- ↳ Encouraging women entrepreneurship.
 - ↳ enhanced digital literacy among women.
 - ↳ Better educational facilities and government aided schemes for girl education.
 - ↳ Employing more women in skillful jobs.
 - ↳ Skill development of rural women.
 - ↳ Better credit facilities to rural women.
 - ↳ Better banking facilities and microfinance institution.
- India needs to increase its FWER - only then it will become a global power

Q11. Fiscal policy of India always has two objectives, namely improving the growth performance of the economy and ensuring social justice to the people. Elaborate. (15 marks/250 words)

Fiscal policy is one of the two major policies of the government regarding the budgetary management of the country. The emphasis of fiscal policy lies on ensuring the growth of the country and also on to ensure social justice to the people.

Fiscal policy is a major tool of the government to accelerate growth of the country.

Government through its fiscal policy allocates properly the budget ~~allocating money~~ for ~~various department and~~ ministries.

- It focuses on allocation of funds to various government departments to accelerate the infrastructural prospect of the country.
- It makes specific provision for the private sector to invest in the infrastructure and growth of the country.
- Government through fiscal policy allocates money to various departments like Railways, Aviation, Ministry of Transport, Ministry of Human Resource, Environment Ministry etc who on their own contribute to development of the respective field.

o Through fiscal policy - government levies taxes from its citizens which is the bulwark of the income of the government through which it undertakes all the investment in the field of infrastructure and development.

Thus fiscal

o Its investment in ICT have fuelled economic growth of the country.

o Through fiscal policy - Government has created production units to create employment generation in the country.

Thus, a well designed and a planned fiscal policy is imperative for inclusive growth of the country.

- However, fiscal policy of India also pertains to social justice of the people.
- Government levies taxes from the people and distributes it among the poor in the form of subsidies, budgetary allocation.
 - Through various centrally sponsored and central schemes, like PM Kisan Nidhi, PM Awas Yojana, PM Matsya Sampada, fiscal policy has created social justice to the poor.
 - By providing housing facilities under AMRUT and PM Awas Yojana, it has provided justice to the homeless poor.
 - By spending more on schemes like MATRU Vardana Yojana, Eklavya model for tribals, Sarva Shiksha Abhiyan, it has provided education to the poor and the marginalised.
 - Through schemes like Integrated Child Care Development, malnourished children have got justice to a large extent. Thus, Fiscal policy of India has come a long way in promoting growth as well as justice to the people.

Q12. In light of various issues being faced, discuss the need for a revamped and need-based PDS in India. (15 marks/250 words)

Public Distribution System has come a long way in enhancing the socio-economic condition of the poor and the marginalised section of the society.

PDS has been facing numerous problems in efficient delivery of the services to the poor and the needy ones.

Problems of PDS system in India

→ PDS in the country is not being able to cater to the needs of the ever growing huge population of the country.

- Lack of proper institutional infrastructure is one of the major bottlenecks of the PDS.
- Corruption among the officials reduces the effectiveness of the Public Distribution System.
- Leakage in the delivery of the items.
- Poor infrastructure regarding the storage of the food grains which results in massive losses.
- Ghost beneficiaries, ~~is one of~~ with intended items not reaching the actual poor and needy ones.

~~With~~ Along with it

- Lack of Inter state coordination among the states have rendered the PDS system ineffective.
- Lack of political will on part of the executive.
- Lack of Information communication technology and online services in the delivery of the services.
- Illiteracy among the poor.
- Bureaucratic hurdles in obtaining the necessary documents.

With several such problems infesting the PDS of the country, PDS in India should be need based and undergo serious overall revamp to cater to the needs of the poor and the marginalized.

- Government need to make a properly researched list of beneficiaries backed by adequate data.
- Scientific and data driven documentation of the beneficiaries.
- Enhanced infrastructure in the storage facilities in the country to minimise the losses.
- ICT enabled delivery of services.
- Proper grievance addressal mechanism for the poor.
- opening online platforms for like sms portal, e-seva ~~sewa~~ for better delivery of services to the poor.
- Digitisation of Records.
- GPS tracking of the trucks carrying the items.
- Stringent laws on corruption.

Thus overhauling the current PDS system on modern digitally driven basis can go on radically uplifting the socio-economic condition of the poor.

Q13. Food subsidy bill is becoming an "unmanageably large" expenditure for the government. In this context, analyse the need for revisiting the National Food Security Act (NFSA), 2013. (15 marks/250 words)

Q14. An effective approach to green budgeting is underpinned by strong strategic framework, tools for evidence generation and an enabling budgetary governance framework. Discuss. (15 marks/250 words)

Q15. State finances in India present a worrying picture, with debt sustainability being a major concern. Discuss in context of the recent RBI report on state finances. (15 marks/250 words)

Q16. Discuss the role of geospatial technologies in developing effective approaches for disaster risk reduction and disaster management. (15 marks/250 words)

India is prone to many hazards and its vulnerability profile pertains to have a well designed

Q17. What are the challenges of infrastructure financing in India? Do you think the current investment models are effective in addressing those? Critically comment. (15 marks/250 words)

Q18. The impact of floods on life and property can be most effectively reduced by hazard mapping. Comment. (15 marks/250 words)

India, owing to its location is very much prone to hazard and natural disasters ranging from earthquake, landslides, cyclones to drought, erosion and flood.

The vulnerability profile of India shows 12% of India's geographical land to be affected by floods every year. The entire gangetic plain and the Brahmaputra plain is prone to massive floods every year. Along with it occasional cloudbursts in the Himalayan region and incessant heavy rainfall in the western and eastern ghats also contribute to floods in those areas.

Cause of flood

- o Heavy rainfall in the rainy season.
- o Natural geography & topography of the land.
- o Siltation of rivers, carrying sediments across its own thereby rising the river beds.
- o construction of dams and reservoirs obstructing the natural flow of the river.

The impact of floods can be catastrophic to both life and property. The National Disaster Management Authority (NDMA) has provided certain guidelines regarding its prevention, mitigation and response.

preparedness.

To stop.

Prevention : ~~Pre~~ Building of dams and reservoirs in the natural flow of the river so that it does not get obstructed.

Mitigation : Flood plain zoning, dredging of river beds diverting the flow.

Impact of floods can be reduced only with a properly designed mitigation planning and hazard mapping.

Hazard mapping can be the most effective tool to reduce the impacts on life and property.

It will create a scientifically driven database of the actual flood prone areas.

o Hazard mapping will enable the DDMA to design a proper disaster risk assessment programme associated with the flood.

o It will enable early warning signals ~~to the~~ Indian Meteorological Department (IMD) regarding flood forecasting and the vulnerable profile.

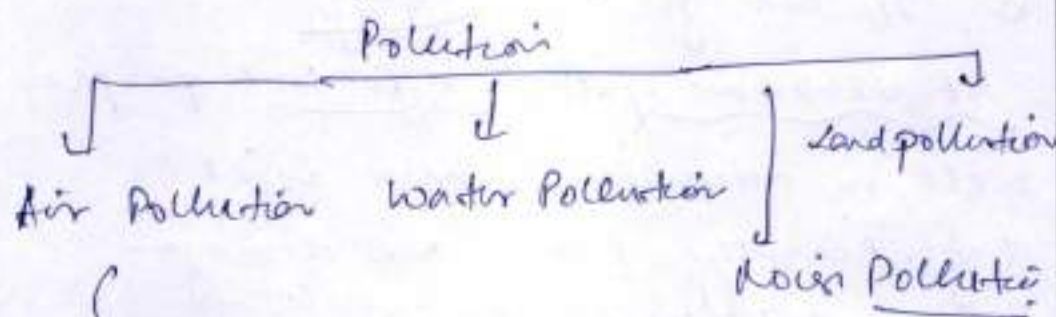
o Hazard mapping will specifically enhance the disaster response programme of the concerned authorities.

o It can go a long way in rehabilitation of the affected people well in advance which will significantly lessen the damage associated with it.

o Hazard mapping can effectively enhance the capacity building of the affected area's people. Thus, a scientifically driven hazard mapping can indeed be a

Q19. Identify and discuss various pollution control and mitigation technologies.
(15 marks/250 words)

Industrial Revolution has caused tremendous pollution of the mother earth over the years. The increased pollution over the years have also resulted in climate change. Such a degradation of our natural environment have prompted various pollution control and mitigational technologies in recent years to curb the growing menace of pollution.



→ Air Pollution pertains to be one of the major pollution causing

thousands of deaths every year causing various ailments like bronchial illness, asthma, breathing difficulties and many more.

Pollution Control techniques for air pollution

- Fitting of dust filters in various smoke emitting industries like thermal power plants, ~~paper~~ Carbon Paper and Pulp industries etc.
- usage of exhaust pipe in various vehicles emitting less smoke into the atmosphere.
- Carbon capture techniques in the industries.

Pollution Control for water pollution

- treatment of sewage in sewage water treatment

plants before discharging into
water bodies.

- Effective waste management
technology.
- Proper purification of the
household sewage before
releasing it in the drain.

Land Pollution Technology -

- proper solid waste
management disposal.
- ~~was~~ proper assessment
and upgradation of various landfills.
- Biodegradable treatment of
the solid waste in bi-degradable
registers before putting the wastes
in the landfills.

Various mitigation techniques are -

↳ Electric vehicles (EV) can come up a long way to mitigate air pollution.

↳ Blending of ethanol ^(E20) in the petrol to curb air pollution.

↳ Marching towards green fuel.

↳ Afforestation to absorb the excess CO₂ produced by various industries.

↳ Proper Assessment of the Degraded land and proper urban planning can mitigate the land pollution to large extent.

↳ Enhanced land practices and sustainable agricultural practices can also mitigate land and water pollution to successfully combat this scientifically driven pollution.

Q20. The evolving dynamic of geopolitics necessitates the indigenization of technology. Comment. Also, examine the recent developments in the field of indigenous defense technologies in India

(15 marks/250 words)

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