

ForumIAS

ACADEMY

GENERAL STUDIES

Name Of Candidate	Sai Teja M	Roll No.	1910034283
Email Id.		Date:	7/9/19
Mobile No.			

Time Allowed: Three Hours

Maximum Marks: 250

INDEX TABLE

No.	Max. Marks	Marks Obtained
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Total Marks:

INSTRUCTION

1. Do furnish the appropriate details in the answer sheet (viz. Name, Email, Roll No, Mobile).
2. There are TWENTY questions printed in ENGLISH.
3. All questions are compulsory.
4. The number of marks carried by a question/part is indicated against it.
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.
6. Word limit in questions, if specified, should be adhered to.
7. Any page or portion of the page left blank in the Question-Cum Answer Booklet must be clearly Struck off.

Remarks:

Start Time| 2:00 PM End Time| 5:00 PM

Mode Of Examination :

Online ☒ Offline ☐

ECN CODE:

Evaluation Date:

Parameters	Excellent	Very Good	Good	Average	Poor	Very Po
Language						
Structure						
Presentation						
Handwriting						
Content						
Attempt						

ADDITIONAL COMMENTS

Q.1) "No major country has managed to reduce poverty or sustain economic growth without a robust manufacturing sector." In this context, discuss the need for a new industrial policy in India. (10 Marks, 150 Words)

Industrial sector contributes to roughly 25% of country's GDP. It is also the second largest employer behind agriculture.

Manufacturing & Sector

Reduces poverty

- 1) Employment intensive
- 2) Relieves large population in agriculture which is 49% of total workers
- 3) Better payment than agriculture

Sustain economic growth

- 1) Large opportunity for export: eg: Mobiles
- 2) Higher efficiency than agriculture
- 3) Possible decentralised growth based on infrastructure eg: Handicrafts

Indian industrial policy has last been updated in 1991. This necessitates a new industrial policy

- 1) Account for increased role of Pvt. Sector
- 2) Export orientation instead of import substitution
- 3) Focus on Research, Intellectual Properties
- 4) Development of North East India for exports to ASEAN.

Given the rise in FTAs and young demography, a new industrial policy ensures better coordination.

Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

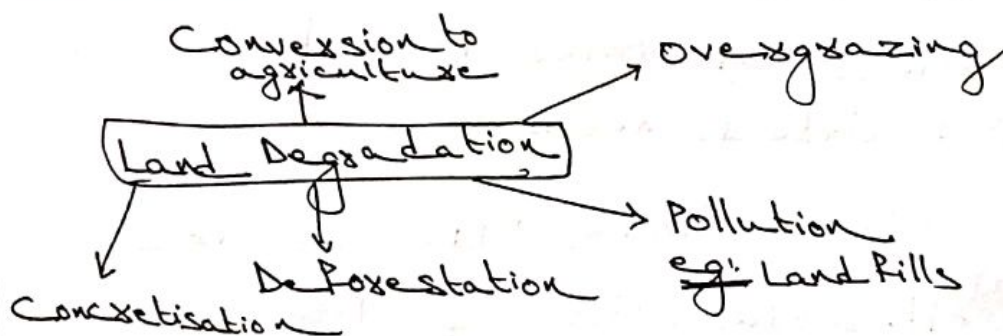
What is Land Degradation Neutrality? In what ways it can act as a centrepiece achieving the goals of Sustainable Development Goal by India. Discuss

(10 Marks, 150 Words)

Land Degradation means to destroy the Fertility of land and make it inhospitable for tree, plant growth.

Land Degradation Neutrality (LDN) aims to be net neutral in terms of overall land quality. It ensures that for every piece of land degraded, equal amount is made Fertile again.

eg: CAMPA Funds aim to reforest areas when ~~are~~ industries cause deforestation.



LDN For achieving Sustainable Development Goals

- 1) Achieve SDG 1 (poverty) by restoring land For agriculture.
- 2) SDG 2 (~~Health~~ ^{Hunger}) \Rightarrow Create agroforests
- 3) Goal of environment protection by afforestation For carbon sequestration.
- 4) Reduces desertification in line with UNCCD goals.
- 5) Improves sanitation by safe disposal facilities.
- 6) Provides safe water Free From percolated heavy metals.

Thus LDN can be an effective strategy For achieving SDGs.

Feedback [For OFFICE use only]

Structure		Content	
Question Interpretation		Total :	

1) Quality of India's human capital is the major impediment in reaping the benefits of demographic dividend." Examine. (10 Marks, 150 Words)

India is set to become the most populous country by 2026 and will peak at a population of 160 Crore (UN report).

Such a large population needs to be properly trained to achieve development.

Quality of human Capital as impediment

- 1) Low productivity eg: Disguised unemployment
- 2) Low employability
Anand Mahindra said 95% of engineers needed reskilling after college.
- 3) Job loss by automation.
20% of low skill jobs are set to be automated by 2030 (HSBC)
- 4) Low wage due to low skill.

Measures needed

- 1) Active Skilling eg: National Urban Livelihoods Mission.
- 2) Improved health eg: Ayushman Bharath
- 3) Digital Skills eg: Digital Saksharata Abhiyan.
- 4) Minimum income to sustain welfare expenses eg: PM-KISAN.
- 5) Increased Financial availability eg: MUDRA Yojana.

Only with a good quality human capital, demographic dividend can be converted to demographic dividend

Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

4) "Despite bringing in new crops, technologies and markets for farmers, contract farming excludes the smallholder farmers." Analyse. (10 Marks, 150 Words)

Contract Farming is a legal contract between a producer and buyer to purchase a fixed amount of crop at a predetermined price.

It has several advantages

- 1) New crops like exotic vegetables and cereals can be grown.
eg: Iy's produces specific potatoes
- 2) New technologies like micro irrigation due to loans from buyers
- 3) New markets by leveraging expertise of buyers eg: Export of basmati.
- 4) Increased investment from buyer
eg: Haldixam's contract in Gujarat led to improved investment facilities
- 5) Price certainty due to contract

But small holder farmers have problems

1) ~~low~~ Lack of legal expertise in case of dispute

eg: Gujarat tomato farmers agitation.

2) Information asymmetry causes biased contracts.

3) Exploitation due to lack of quality certification

4) Companies prefer to deal with larger farmers as they have better resources.

Thus Swaminathan Committee

has suggested to increase the cooperativisation for better results.

Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

5) "Plant Variety Protection law regulating intellectual property rights in seeds is considered indispensable for seed sovereignty and thus food sovereignty." Examine.

(10 Marks, 150 Words)

Plant Variety Protection Law (PVPL) deals with Intellectual Property Rights (IPR) of biological entities like plants, seeds.

Indispensable For Seed Sovereignty

- 1) To prevent biopiracy i.e., stealing traditional rights
- 2) ~~Pre~~ Regulate bioprospecting i.e., Use of biological materials for IPR.
- 3) Ensure ownership of Farmers
- 4) Reduce cost to purchase seeds
∴ Farmers can use Farm produced seeds.
- 5) Regulate use of terminator gene
- 6) Enable Farmers to produce hybrids

Food Security

- 1) Ensures Indian seeds are not illegally copyrighted or trade marked.
- 2) Improves availability of seeds.
- 3) Also ensures nutrition security by covering diverse plants.
- 4) Improves yields based on hybrids.

Thus PVPL is an important law ensuring genetic ownership. But of late, few companies tried to circumvent the law and register a few seeds and increase cost.

In this context, it is important to improve data banks of seeds (eg: NKN) to prevent biopiracy.

Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

6) What do you understand by Circular Economy? Describe the role of Circular Economy in increasing productivity and sustainability. Discuss the steps taken by India towards being a circular economy. (10 Marks, 150 Words)

Circular economy means an economy in which net goods produced are equal to net goods consumed.

In such an economy, there are no leakages like Current Account Deficit.

Role in:

Increased productivity

- 1) Ensures investment availability
- 2) Healthy competition
- 3) Distribution of profits to domestic entities

Increase sustainability

- 1) Healthy foreign currency reserves
- 2) Low external debt
- 3) Sovereign monetary, fiscal policies

Steps taken

- 1) Attempts to increase investment
eg: ₹ 1.5 Lakh IT exemption for electric vehicles
Recapitalisation of banks.
- 2) Taxing of Foreign Portfolio Investors (FPIs)
- 3) Improving export connectivity
eg: Sagarmala.
- 4) Ease of Doing Business rank
brought to 77 from over 140.

Further structural
Reforms like labour codes also
indirectly promote circular
economy.

Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

Q.7) Coalition for Disaster Resilient Infrastructure (CDRI) could fill a real gap at a time when climate change-induced floods, cyclones and fires have multiplied in destructive force. Analyse.

(10 Marks, 150 Words)

India is estimated to loose 10% of GDP by 2050 due climate change induced disasters like Floods, & Famines according to oxfam report.

Increased climate change related destruction

- 1) Floods ⇒ i) Excessive rainfall
ii) Sudden burst eg: Kerala, 2019
- 2) Cyclones ⇒ i) Increased Arabian sea cyclones
ii) Greater force eg: Phailin
- 3) Fires ⇒ i) More frequent fires due to global warming
ii) Dry winds eg: Santa Anna (California).

In this context, CDRI can be useful for mitigating disaster.

Role of CDAT

- 1) Floods \Rightarrow Can aid in building both resilient and easily repaired infrastructure
eg: Already used in Puxi, Odisha
- 2) Cyclones \Rightarrow Building codes designed to withstand high winds
- 3) Rivers \Rightarrow i) Creation of monitoring sites
ii) River breaks in areas.

Given the large scale destruction that occurred this year in Kaziranga Park due to floods, it is now time to adopt a resilient infrastructure model in line with Sandai Framework and CDAT.

Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

Q.8) Discuss the contribution of Vikram Sarabhai in the advancement of space technology in India. Also, enumerate challenges faced by Indian Space Research Organisation in the commercialisation of its Space programme.

(10 Marks, 150 Words)

Vikram Sarabhai was among the leading Indian scientists in early investment in space technology.

Contribution

- 1) Role in establishment of ISRO.
- 2) Early proposal of sounding rockets
- 3) Contribution to satellites, eg: Aryabhata
- 4) Training of first Indian in space - Rakesh Sharma

In light of his contributions, the lander of Chandrayaan 2 has been named Vikram.

Challenges in commercialising ISRO

- 1) Registration of Intellectual Property takes over 2.5 years.

- 2) Lower competence in geostationary launches. Currently, ISRO prioritises Low Earth Orbit.
- 3) Competition from SpaceX, ESA, etc.
- 4) Newly established commercial arm (New Space India Limited).

Despite the challenges, Antix recently established a record 106 satellites ~~sim~~ on a single launch of PSLV.

Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

9) What is a cyborg? Enumerate different application of cyborg in humans. Also, discuss various concerns arising out of it. (10 Marks, 150 Words)

Cyborg is an artificially enhanced biological organism. It gives the organism abilities which were not previously possible.

Application in humans

- 1) Heavy lifting ability
- 2) Faster thinking: eg: chip proposed by Elon Musk.
- 3) Enhanced resilience to physical shocks.
- 4) Makes certain types of vehicles redundant.
- 5) Increased safety
eg: In mining operations.
- 6) As an artificial organ
eg: Cyber leg.

Concerns

- 1) Ethical concerns of human experimentation
- 2) Possibility of losing control
- 3) Creation of Super Soldiers
- 4) Assigning responsibility for accident caused by a cyborg.
- 5) New arms race

with cyborgs moving from realm of science fiction to reality, it is important to adequately analyse the concerns and create a legal framework for regulation.

Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

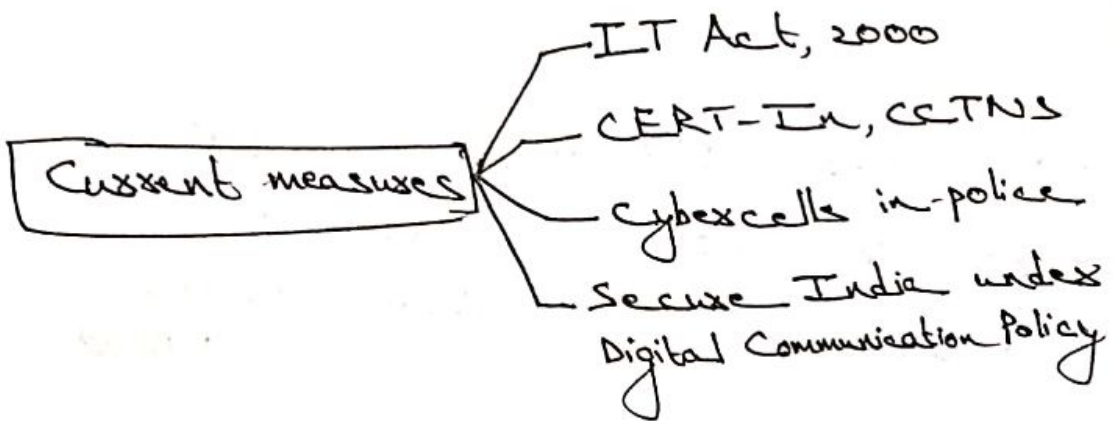
Q.10) What are the different challenges arising out of social media? Also, suggest additional measures to tackle the menace of social media. (10 Marks, 150 Words)

India had 450 million smartphone users in 2017 and is set to increase to 850 million by 2023 (NASSCOM)

This leads to a large number of users of social media

Challenges

- 1) Privacy concerns. eg: Misuse by Cambridge Analytica.
- 2) Cyber security
- 3) Cyber bullying on social media.
- 4) Extremism. eg: ISIS use of Facebook.
- 5) Manipulating voter behaviour
eg: Russian alleged involvement in US.
- 6) Fake news: eg: News of child kidnapping led to lynching in Assam.



Additional measures

- 1) Govt. proposed limiting number of forwarded messages
- 2) Creation of safe cyber spaces
eg: Youtube kids
- 3) Awareness of illegal activities
- 4) Regulate child specific content
with rise in social media based crimes, a comprehensive law directed at it will be a starting step.

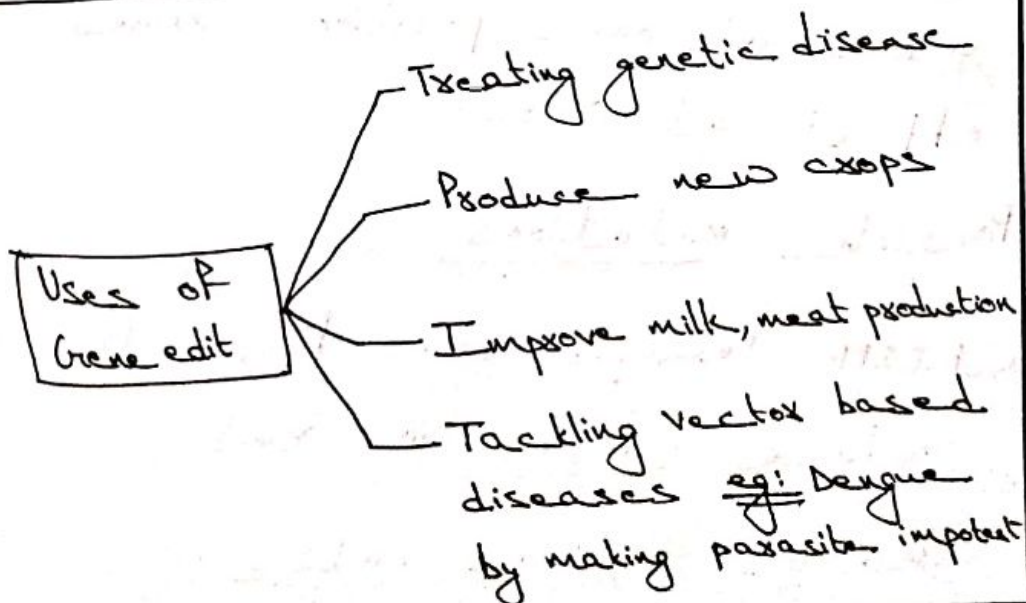
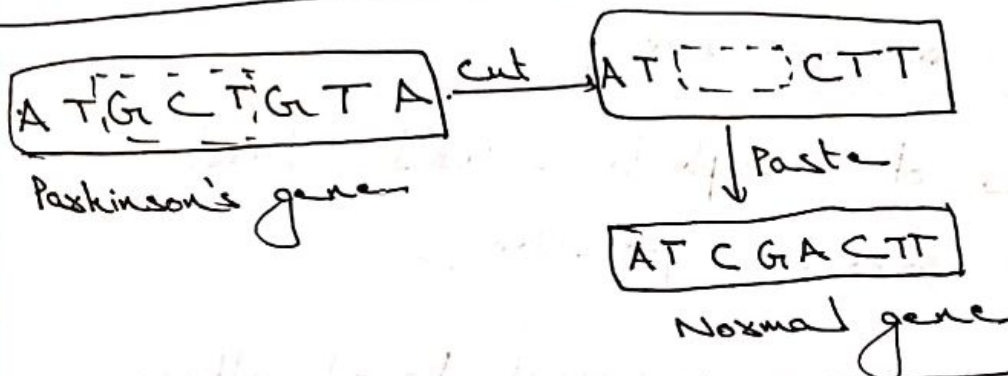
Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

Q.11) What is gene-editing technology? Also, enumerate the ethical and biological concerns associated with the gene editing in humans. (15 Marks, 250 Words)

Gene editing technology uses certain "molecular scissors" to edit parts of a gene to produce a different more beneficial gene.

eg: CRISPR - CAS9 technique.



Ethical concerns

- 1) Using animal genes in plants
- 2) Human, animal experimentation
- 3) Fixing responsibility for failure
- 4) Humans "playing god"
- 5) Use for biological warfare

Biological concerns

- 1) Lack of complete understanding of gene expression
- 2) Stanford experiment found altering gene at one position showed effect at another.
- 3) Possible mutations
- 4) CRISPR technique was found to induce cancer in rats
- 5) Creating designer babies

In light of recent
misuse by a scientist in China
to experiment on human, it
is necessary to regulate the
technology.

Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

Q.12) "Investment, especially private investment, is the "key driver" that drives demand, creates capacity, increases labour productivity, introduces new technology, allows creative destruction, and generates jobs." Examine. Also, bring out the factors inhibiting the flow of private investment in India in recent past and suggest measures to address them. (15 Marks, 250 Words)

Investment in India is currently at a low of 29% of GDP while at least 40% is needed for a sustained 9% growth rate.

Investment as key driver

- 1) Drives demand for capital goods
- 2) Creates capacity to produce more
- 3) Increases labour productivity by skilling. eg: Skill India
- 4) New technology is used for efficiency eg: Use of Internet of Things
- 5) Creatively destroys old infrastructure
- 6) Generates jobs in new areas eg: Artificial Intelligence jobs

Factors inhibiting private investment

- 1) Problem of NPAs in banks
- 2) Crisis like IL&FS, PNB Scam
- 3) ~~Low~~ ^{High} Savings: investment ratio.
- 4) Lack of awareness of mutual funds
- 5) Shallow bond market
- 6) Definition of MSMEs based on investment causes companies to invest low to qualify for MSME exemption

Measures

- 1) Recapitalisation of banks
- 2) Corporate Governance norms
eg: Kotak committee report.
- 3) Effective audit to prevent scams.

4) Improve awareness to mobilise
household investment

5) Easing of FDI norms
eg: Budget announcement on airline sector

6) Bringing uniformity in MSME definition
based on revenue as proposed
by govt.

Mobilisation of investment
requires "Blue Sky Thinking" as
suggested by Economic Survey

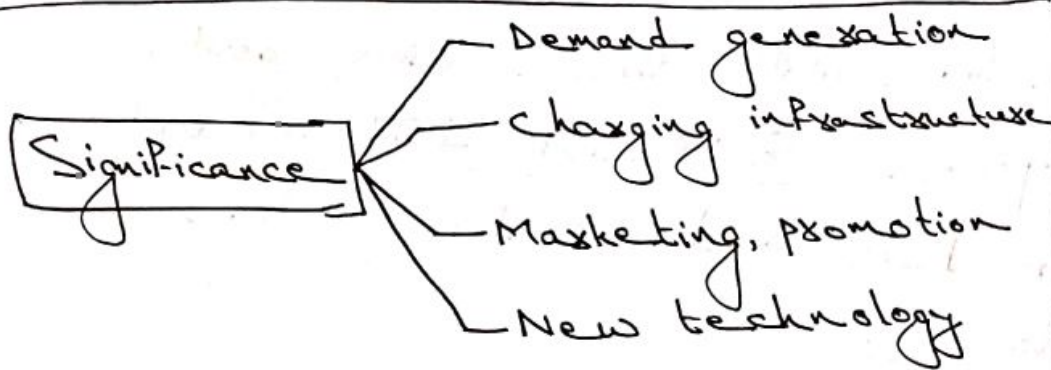
Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

Q.13) Discuss the significance and salient features of FAME II (Faster Adoption and Manufacturing of Hybrid Electric Vehicles) Scheme. Also, evaluate the impact of the FAME II scheme on the promotion of electric vehicles in India.

(15 Marks, 250 Words)

FAME II Scheme aims to promote Electric Vehicle (EVs) usage and make India a manufacturing hub for electric vehicles.



India aims to increase EVs so as to tackle problems like pollution, import dependence on petroleum.

Salient Features

1) Increases life of FAME I scheme beyond 2020 till 2024-25.

- 2) Support for pilot projects
- 3) Separate charging lines for electricity distribution.
- 4) Developing indigenous technology.
eg: Low weight frame.

In line with these aims, govt. proposed ₹ 1.5 Lakh IT exemption on EVs and reducing tax to 5%.

Impact

- 1) Will mobilise industry resources
- 2) Provides public investment in infrastructure
- 3) Sets targets for government and Industry

But, the FAME II is suffering from lack of consistency in policy. Initial target of 100% EVs by 2030 has now been reduced to 30% due to industry concern.

By achieving policy consistency, FAME II can set the platform for automobile sector which accounts for 7% of GDP.

Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

Q.14) "Revival of Inland Waterways in India is a new step towards economic development." Bring out the factors that hamper the progress in the development of inland waterways in India? Discuss initiatives taken by the Government of India in this regard. (15 Marks, 250 Words)

India has an inland water network of 14,000 km which when capitalised can significantly reduce transportation costs.

Factors hampering

- 1) Lack of investment
- 2) Low last mile connectivity of waterways to industry.
- 3) Lack of availability of vehicles like boats. Most of the mechanised boats are imported.
- 4) Lack of inland ports
- 5) Difficult navigation
eg: Low depth in Peninsula India.
- 6) Compromise between environmental concerns and development.

Initiatives taken

- 1) Creation of 101 National Waterways
- 2) Creation of inland terminals eg: Vaxanasi
- 3) Roll on/Roll off facilities For road connectivity.
- 4) Creation of database For water level using GPS.
- 5) Creation of multimodal logistic parks For rail connectivity.
- 6) Synergy with Sagarmala For imports.

Due to these efforts,
Recently, First inland water container
transport was conducted by Pepsi
From Haldia to Vaxanasi.

Unleashing inland waterway
helps achieving the target of reducing
logistic costs from 14% to 10%

Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

Q.15) What do you mean by Environmental Impact Assessment? Discuss the major reasons that have limited the success of EIA. Suggest measures that can be taken to make EIA an effective tool.

(15 Marks, 250 Words)

Environmental Impact Assessment is conducted to evaluate the effect caused by a project on its environment.

It is used to decide permissions, and calculation of funds for ~~cost~~ Compensatory Afforestation Fund.

Reasons for limited ^{success} capacity

- 1) Biased EIA conducted
- 2) Lack of specific norms based on industries like thermal power
- 3) 3rd party EIA conducted by certain universities, NGOs lack capabilities for technical study.
- 4) Ignoring EIA in certain cases
eg: Linear projects like roads.

- 5) Low public involvement in EIA
- 6) Companies are allowed to conduct as many EIAs as they like and are only required to produce one. Many companies conduct using altered methods till they get clearance.

Measures

- 1) Project specific EIAs
- 2) Public, activist members in EIA conducting team.
- 3) Limiting to one EIA.
- 4) Creating technical capabilities for conducting EIAs.

Recently, Madras High Court has categorically mentioned

that old thinking of economy and ecology as antagonists must be stopped. This spirit needs to be followed in E.I.A.s.

Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

Q.16) Illustrate with examples the menace of plastic pollution. With reference to Plastic Waste Management Rules 2016, discuss the measures to be adopted to mitigate the impact of the plastic wastes in India. (15 Marks, 250 Words)

Plastic pollution is set to contribute to 15% of global CO₂ emissions by 2050. This is higher than that produced by motor vehicles.

Examples

1) Formation of garbage islands

eg: Great Pacific patch.

2) Biomagnification

eg: Microbeads presence in birds

3) Damage to animals eating them

eg: Many cows have stomach blocked by plastic.

4) Acting as vectors

eg: Certain bacteria in Andaman was found to have travelled on floating plastic.

5) Filling landfill sites

6) Leaking of chemicals

eg: Bisphenol-A.

7) Clogging of drains. eg: Chennai Flood, 2015

Measures under Plastic Waste
Management Rules, 2016

1) Extended Producer Responsibility (EPR)

2) Segregation by large producers
like industries

3) Limiting minimum size (thickness)
of plastic bags to 50 microns.

4) Ensuring disposal, recycling facilities
by government

5) Encourages pvt. participation
for creating a plastic economy
to recycle.

6) Ban on Imports of certain
plastics. eg: PET bottles

In addition to these, the proposal to ban single use plastics by 2022 may be useful in arresting plastic pollution.

Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

Q.17) "Despite India's outstanding growth in the last two decades, low pay and wage inequality remain serious obstacles towards achieving inclusive growth." Comment. Also, suggests the way forward for rationalising and streamlining the policy for minimum wages.

(15 Marks, 250 Words)

India has achieved a growth of over 7% in the last two decades. But this growth has been lopsided.

Low pay

- 1) 49% of ~~agricultural~~ population is engaged in agriculture with low pay.
- 2) Minimum wages haven't been imposed practically.
- 3) Average Per Capita Income is still under \$5000 (PPP)

Inequality in wage

- 1) 70% of GDP is distributed as profits & not wage.
- 2) Skill premium on high skilled workers
- 3) Rural - Urban, gender gaps

These Factors prevent
an inclusive growth.

Way Forward

- 1) Simplification of labour laws
into 4 labour codes
- 2) Wage code proposes nation wide
minimum wage.
- 3) Increase coverage of wage
laws to informal sector which
employs 90% of population.
- 4) Re-skilling workers for higher wage
eg: Skill India
- 5) Increasing contribution of manufacturing
sector to 25% as proposed
in manufacturing policy..

Further, use of Corporate
Social Responsibility Funds to improve
agricultural productivity and doubling
the wages can help in a
(by 2022)
more inclusive development.

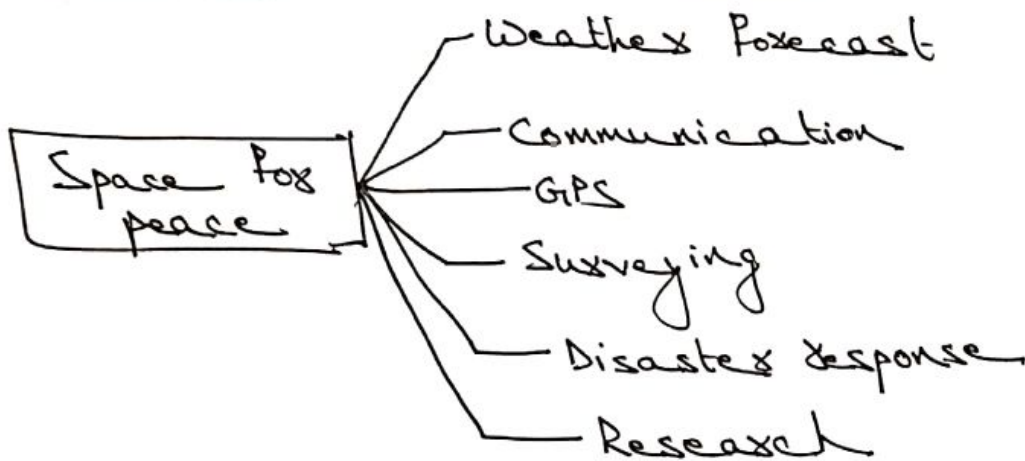
Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

Q.18) The space war would destroy the intrinsic trust and cooperation necessary to maintain the systems deployed in space for peaceful purposes. Examine Also, discuss the concerns related to space debris with respect to India's mission Shakti.

(15 Marks, 250 Words)

- Recent Anti Satellite (ASAT) test by India has reignited the debate on space wars.



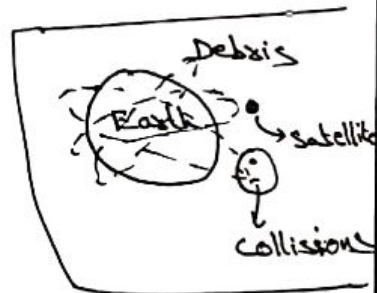
Space war destroys trust needed because:

- 1) Creates arms race
eg: US created space command
- 2) Possible destruction of peaceful satellites.
- 3) Reluctance to share information and technology.

Cooperation is needed to

- 1) Further Science collaboration
- 2) Reorient satellites to prevent collision
- 3) Multilateral projects
eg: International Space Station.

Shakti is India's ASAT test which destroyed satellite and created debris.



Concerns

- 1) Increased debris
- 2) Effect on future satellite launches
- 3) Threats to space missions eg: Gaganyaan
- 4) Cost of tracking
- 5) Kessler Syndrome of increased collisions.

As Shakti test was performed at a very low altitude, space debris was minimised.

An international collaboration is needed to protect the global commons like space for peaceful use.

Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

Q.19) Chief of Defence Staff (CDS) is the topmost rank in the services hierarchy in India. In this context, discuss the significance of CDS and outline the challenges faced in its appointment. Also, discuss further reforms required to make Indian military a modern force.

(15 Marks, 250 Words)

CDS is a single point adviser to the Prime Minister, and also acts as the head of the 3 services - Army, Navy, Air Force.

Significance

- 1) Single head of all 3 services
- 2) Coordination of defence procurement and planning.
- 3) In Future, as a possible link for theatre commands

Challenges in appointment

- 1) Not decided if CDS is a 4 or 5 - star general
- 2) Turf war from smaller services of Navy, IAR.

3) Lack of proper integration currently.

Further Reforms

Various committees like Kargil Review Committee, Group of Ministers, and Lt. Gen. Shekatkar Committee have made recommendations.

1) Improving teeth-to-tail ratio

2) Increasing capital expenditure
from 6% to 15%.

3) Decreasing non remunerative activities like army farms.

4) Tri service integration theatre commands

5) Indigenous defense production

Given the threat from China, Pakistan and a

competitive Indo Pacific, rapid
restructuring of military is needed

Feedback (For OFFICE use only)

Structure		Content	
Question Interpretation		Total :	

Q.20) In an era when cybersecurity is increasingly becoming a grave threat to nations, 'Digital India' cannot sustain without a 'Digitally Secure India'. Discuss. Also, critically evaluate the interventions by the Government of India in creating a digitally secure India. (15 Marks, 250 Words)

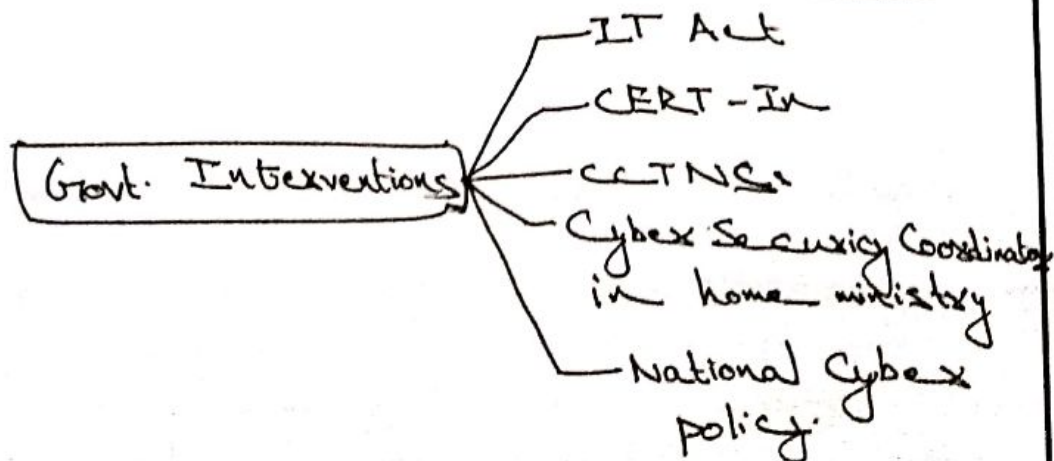
World wide, cyber attacks have grown at a rate of 78% over the decade according to Norton.

Thus cyber security is crucial.

Digitally Secure India is needed

- 1) To catch criminal threats eg: CERT-In
- 2) Reduce GDP loss
- 3) Ensure disaster resilience
- 4) Defend from cyber warfare

Q



Success of govt.

- 1) Strict policy in place
- 2) Education of public
- 3) Police capability development

Issues

- 1) Prevalence of cybercrime
eg: Ransomware
- 2) Child safety: eg: Blue whale game
- 3) Financial loss eg: Phishing

There is hence a
need for a separate cyber
law and privacy law as per

Srikishna Committee