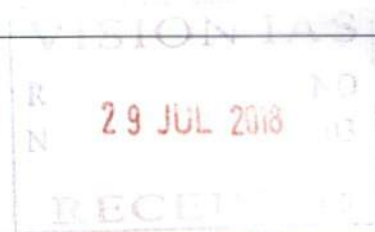




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GENERAL STUDIES (TEST CODE : 1068)

Name of Candidate	PUNEET DWIVEDI		
Medium Hindi/Eng.	ENGLISH	Registration Number	318523
Center	OLD RAJINDER NAGAR	Date	26 July 2018

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
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:

Signature of Examiner

INSTRUCTIONS

1. Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code).
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. No marks will be given for answers written in medium other than the authorized one.
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.

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 Homeopathic 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. There are many challenges in sustainably scaling up renewable energy in India. Analyse. Also, discuss what can be done to address these challenges.

(150 words) 10

India has set a target of 175 GW of renewable energy production by 2020 under INDC of Paris treaty. However challenges of pricing, technology and demand limit the scaling up.

Challenges of scaling up of renewable

- Pricing: solar and wind projects have bid for very low prices which may not sustain them.
- Contracts: with fall in prices of renewable many DISCOMs have renegotiated thus endangering sustainability.
- continuous continuity of power: since renewable energy are fluctuating in nature, mechanism for ensuring supply during peak hours and night need to be ensured.

- technological constraints → R&D development remain poor
- dependence on imports : India depends on imports of photovoltaic and silicon materials which limit scaling up
- battery and storage : need to develop battery and storage technology for ensuring supply during non-peak hours.
- skilled manpower : lack of skilled technicians limit the growth of industry.

How to address challenges

- pricing policy should include the cost of maintaining the solar grid
- promote research and development
- alternate battery and storage tech developments
- benefits for home installation of solar panels
- land acquisition policy

2. The policies and indicators introduced by the government, in recent times, to finance urban development in India are key in addressing the existing challenges. Discuss with special reference to municipal bonds.

(150 words) 10

Nearly 34 % of population lives in Urban India. Rapid and unplanned urbanisation has created problems of slums, pollution, poverty and crippling infrastructure.

Schemes and policies by Government

→ Smart cities Mission : 100 cities to be identified ; special purpose vehicle to be set up for area development ; 500 crore and upto 50% by central government rest from own local bodies and state government.

→ AMRUT :

→ Replaces JNNURM

→ aims to develop sewerage infra, sanitation etc.

→ Funding contingent on performance.

→ 7 star rating

- Ranking for cities based on sanitation parameters
- effective implementation of Swaccha Bharat Mission and solid waste management
- external agency to verify rankings

→ HRIDAY

- identified 12 key tourist cities like varanasi, Puri etc.
- develop facilities for tourists and urban infra such as water and sanitation.

→ PRASAD

- Identification and development of major religious sites.

→ MUNICIPAL BONDS

- cities are encouraged to generate funds via municipal bonds to ensure autonomy
- Pune recently became first city to issue municipal bonds on NSE
- Would make financially autonomous and

3. With a number of issues continuing to be a roadblock, a large section of India's rural population is still 'financially excluded'. Discuss. Analyse how these issues can be addressed and the measures taken by the government and RBI recently in this regard. (150 words) 10

Financial inclusion refers to access to financial services including savings, credit and insurance by even vulnerable sections of population at a cheaper cost

Status of financial inclusion in Rural area

- According to NSSO 62% population in Rural area w/o access to financial services
- only 27% avail formal bank credit and rest depend on moneylenders for credit.
- penetration of insurance is less than 2%.
- Financial Inclusion Index by CRISIL at only 40.

Steps by Government and RBI

- Jan - Dhan - Aadhar Yojana : opening 0 balance accounts ; nearly 30 crore new accounts opened.

- Linking food and other subsidies with aadhar and bank accounts
 - Payments bank for covering the unorganised section of workforce
 - Mandatory rural branch opening : RBI has directed banks to open branches in rural area.
 - Small finance banks funding upto 25 lakhs of rural ventures.
 - Kisan credit card: modifications introduced for easy withdrawal and limits increased
 - P.M. Fasal Bima Yojana Replacing MNIS FBY aims to increase insurance penetration; there is no cap on premium rates.
- Financial inclusion ensures accessibility of credit and delivery and better targeting of schemes, efforts must be put on for increasing agri incomes, development of MSMEs.

4. What do you understand by the term 'Environmental Accounting'? Discussing the rationale behind introducing environmental accounting, highlight its status in India. (150 words) 10

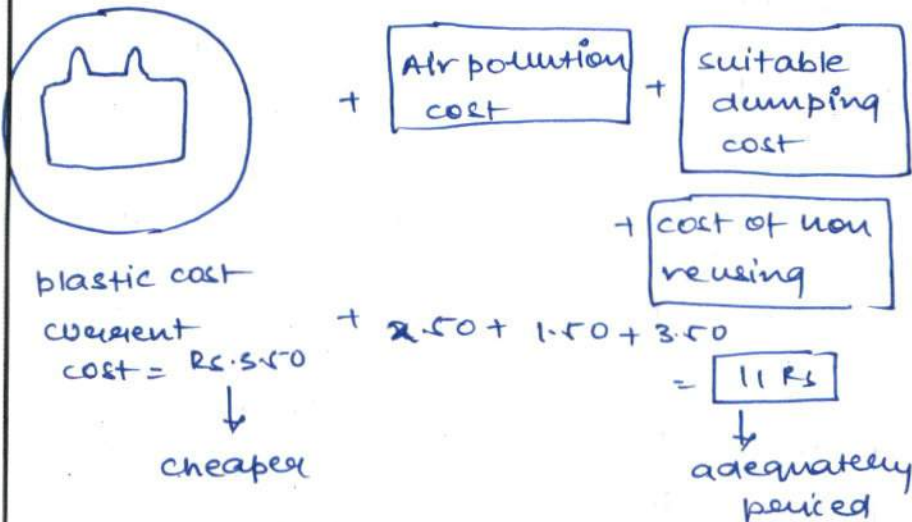
Environmental accounting refers to calculation of economic impact any business activity causes on environment and suitably pricing products on such basis.

Rationale behind Environment accounting

- Every environmental cost involved in implementation of any activity is currently ignored
- Creates a notion of "free resources" and no accountability of manufacturer towards environment
- by introducing suitable cost to each polluting activity a correct price could be arrived at.
- This will make sure interventions

that are environmentally friendly yet costlier stand in competition to cheaper polluting substances.

eg.



Status in India

- Forest act requires firms to carry out Environment Impact assessment of projects
- plastic handling rules has put up onerous on manufacturers, shopkeepers to have adequate collection mechanism.
- still nascent in India and not effectively enforced.

5. While access to irrigation is important, efficiency of water use is equally, if not more, crucial. Examine. (150 words) 10

India is an agriculture dependent country yet only 35% of India's 140 m Hectare land is covered under irrigation.

Problems of access

- Regional disparity : West and central India has good irrigation networks but North East and Eastern India remain water starved
- Failures of schemes : Har Khet ko pani and Accelerated Irrigation development programme are reeling under bad implementation and monitoring.
- disparity among farmers : rich farmer are getting more benefits than poor
- free electricity : is causing rapid depletion of ground water sources.

problems of efficiency

Irrigation Type	% Efficiency	Losses/ limiting factor
Canal	25%	Evaporative, wastage
Tube wells	45%	High electricity, wastage of groundwater
sprinkler	65%	High cost

Irrigation type vs efficiency

- Water is getting a scarce resource and hence ensuring efficiency important
- Rapid declining water levels underground
- wastage of water results in soil degradation and soil alkalisation.
- Govt scheme of more crop per drop aims to increase efficiency of existing irrigation.
- agriculture productivity gets affected due to lesser efficiency of irrigation.

6. For a holistic approach to disaster risk reduction, there is a need to mainstream indigenous traditional knowledge and link it with modern technologies. Analyse. (150 words) 10

Sendai ~~disaster~~ disaster risk reduction outlines that DRR is not only responsibility of government but equally shared by local governments and population.

Linking modern tech with indigenous

- Indigenous methods have evolved over time with local knowledge and traditional tools
- Drought: construction of localised dams and embankments eg. Rani ki Vav in Gujarat, bawris in Andhra Pradesh etc.
- Mangroves for coastal areas: could help giving protection from storm surges and check coastal erosion
- Rain water harvesting: could help prevent surface run offs and ground water recharge.

water conservation: such as Ahar pyne
kullis, zabo system of irrigation.

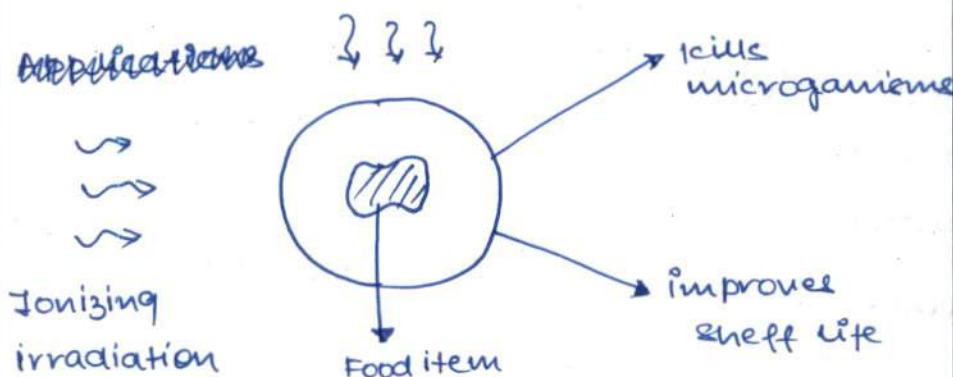
Modern tech Interventions

- identify disaster prone hotspot
via data collection and machine
learning
- use Internet of things and wireless
sensor network to transfer and capture
information.
- generating awareness about disaster
risk and integrating traditional
mitigation techniques with modern
- UN department of disaster risk
reduction has ~~been~~ launched an
exercise of mapping disaster hot
spot

Thus with advanced technology and
traditional methods effective disaster
reduction could be put in place.

7. What do you understand by food irradiation? Highlighting some of its unique applications, examine its relevance for India. (150 words) 10

Food irradiation is a process by which food is exposed to ionizing radiation increasing their shelf life and killing microorganisms.



Applications and relevance to India

- shelf life and preservation: India a tropical country and prone to microorg. This could prevent food damage.
- longer storage of Horticulture: prevent distress sale due to fear of damage. Increase farmer income.

→ safer food : could ensure consumers are consuming safer food with no micro-org.

→ Reduce food wastage : Every year tonnes of food procured by FCI gets damaged while poor are denied food.

→ promotion to food processing industry better shelf life and good quality raw material for a labour intensive industry.

→ address problem of bad infra : bad connectivity of rural and urban markets no more a limitation.

Thus food irradiation if done carefully has potential to address the low income, wastage of agri produce and ensure safe nutritious food to consumers.

8. Whereas misuse of technology has abetted the spread of fake news, it is with the aid of technology that this menace can be curbed. Elaborate.

(150 words) 10

Fake news is spread of false information knowingly and voluntarily by a person so as to influence ~~cognate~~ cognitive functions of another human being.

Fake news : abetted by technology

- Social Media : Fake news has risen with democratisation of communication : i.e rise of social media
- anonymity : Internet enables a person to remain anonymous while spreading any false information
- No checks : Unlike traditional media outlets there are no mechanisms to enforce accountability in news by social media.
- fast and convenient : has replaced the slow and responsible media.

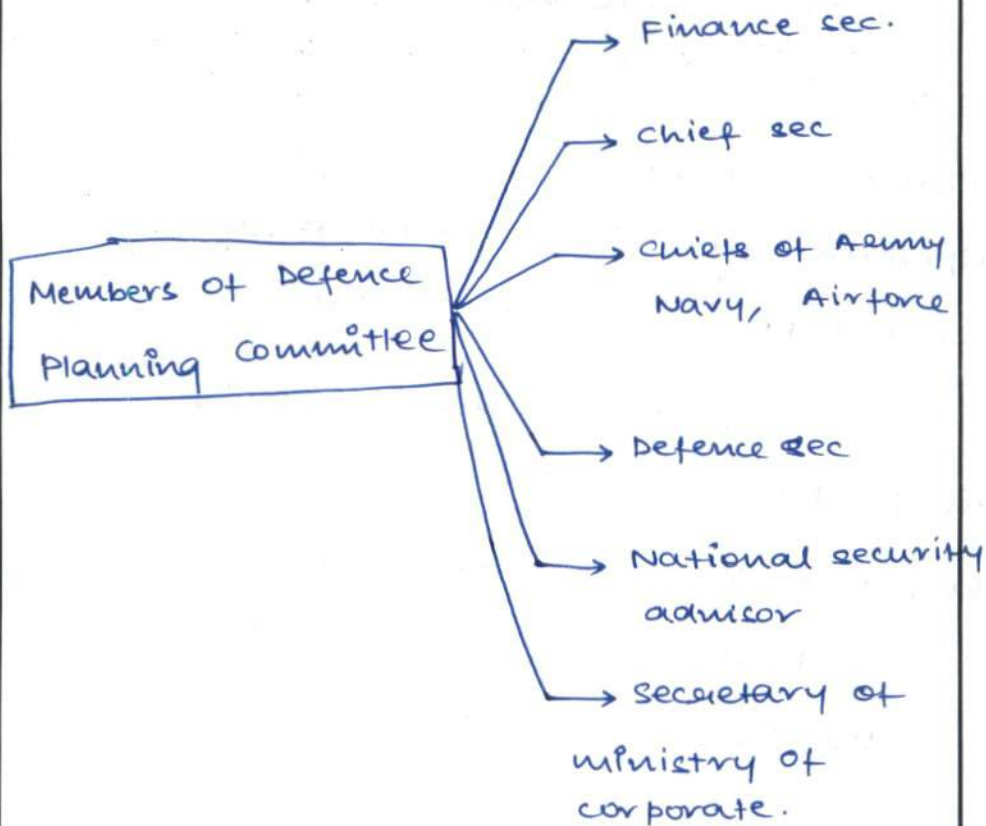
How technology could help stop

- Recent cases of moblynchings in India and use of FB data for influencing US elections show the pervasiveness.
- Need to hold social media companies accountable eg. whatsapp launching forward option
- Use of artificial intelligence and machine learning to separate fake and real news
- anonymity should not be used for protection of perpetrators.
- strict data protection law like EU's GDPR to ensure accountability of digital firms.
- New age journalism and social media ethics to ensure moral sleep of journalists.

9. Explain the salient features of the recently established Defence Planning Committee. How can it help in credible defence preparedness?

(150 words) 10

Defence planning committee is a high level committee constituting officials from PMO, defence, finance and chiefs of armed forces to ensure cooperation and fast integration of decision making.



Salient features and defence preparedness

- align defence procurement with national security policy, as NSA is the member
- faster request for funds and demands via finance ministry
- promote domestic manufacturing and end depends on imports
- promote export of technology and equipments targeting South East Asian markets such as ASEAN.
- reduce time taken for approving requests by armed forces
- Making India self sustainable in defence equipment by cutting down of channels and delays.

10. Recent reports of Maoist leaders having amassed huge assets in property and cash underlines the significance of probing the funding network as part of counter-terrorism efforts. Discuss. (150 words) 10

Recent investigations by Maoist insurgency by Enforcement directorate has revealed that Maoists are amassing wealth and property in Bihar Jharkhand.

Significance of funding network

- Maoist insurgency has infected the states of Maharashtra, A.P., Chattisgarh Bihar etc
- Sources of finance of Maoist funding include
 - mining contractors
 - tendupatta collectors
 - small and medium enterpreneurs
 - transporters
- these funds are utilised for procuring arms and ammunitions

- An interesting find reveals that while Maoist cadre toil in insurgency and fights the leaders have assured their family get best facility
- Counter terrorism efforts should be directed towards breaking the sources of these funding
- Along with this government should ensure development of such regions and creation of jobs

11. Not only do services MSMEs contribute mightily to the overall GDP growth, they have a powerful, multiplier impact on the local economies as well. Elaborating on the statement, highlight the problems faced by service sector MSMEs. How can the government make it easier for MSMEs to start and grow a business? (250 words) 15

Medium and small scale industries as defined per new manufacturing policy are all those industry which have revenues b/w 5 crore and 75 crore.

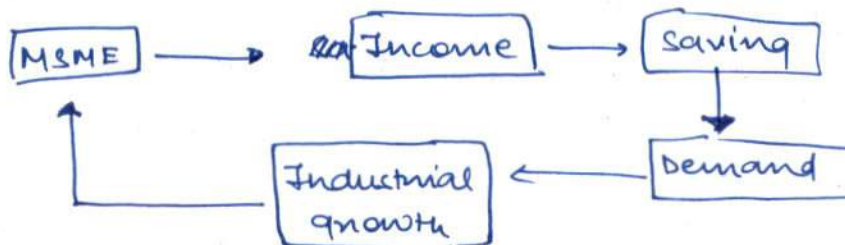
- ~~large employment~~
- ~~labour intense~~
- ~~skill development~~

Relevance of service MSME India

- Non farm Income : service MSME can develop as an avenue for developing non-farm income sources for rural India
- labour Intensive : MSME are labour intensive and thus help in providing ~~even~~ jobs in organised sector.
- skill development : MSME services encourages skill development and thus increase in productivity of rural & labour.

→ multiplier effect : MSME create forward and backward linkages which helps in multiplier effect of the income

→ encourage savings : With rural savings demands for more goods shall rise and thus creating a +ve feed back loop



→ gender equity : promote employment of women and facilitate gender equity and freedom of women.

→ social impact :

- stems rural urban migration
- urban violence
- demand for reservation and farmer interest.

Problems faced by service MSME

- credit : with rising NPAs and dual balance sheet crisis credit supply has been limited. Govt. interventions include MUDRA YOJANA etc
- public procurement : demand of services MSME remains low and thus govt should become major procurer
- delay in payments : Major big private companies often stall payments of MSME limiting working capital. RBI has launched Treds and MSME Samadhan
- connectivity to external market : MSME could become a way of increasing exports
- labour laws and labour unions : govt has simplified hire and fire policy and allowed fixed term in textile, leather etc. MSME offer vast potential for developing rural economy and erasing poverty

12. Contract Farming has many advantages, however it suffers from market failures. Elaborate. What can the government do to correct problems that lead to contract failures? Also, discuss whether the Model Contract Farming Act, 2018 is a step in the right direction. (250 words) 15

Contract farming is an agreement signed between farmers and private firm for a promise of purchase of specified quantity of produce at a specified date. The agreement also mentions the quality standards the farmers must agree upon.

Advantages of contract farming

- Farming inputs : like credit and agricultural tools are provided by firms
- Assured sale : farmer is assured of fixed prices for his produce and firm is assured of quality, quantity and price
- Research in agriculture : firms arrange for improving the knowledge and practices of farmers.

- farming waste: Since farmers already know about quantity farm wastes are greatly reduced.
- uniformity in quality: The firm could maintain uniformity of produce and thus benefit the food processing industries
- prevents distress sales: during lean season or during good season the distress and fire sales are prevented from happening
- farming incomes: could be an instrumental in doubling farmers income as envisioned by government of India
- break the power and monopoly of APMC mandis which are ridden with corruption and inefficiencies

Challenges to contract Farming

- There is no law at present to regulate the contracts
- Farmers are poor and at weaker position

to defend their own rights

→ Market failures: In case of decline in demand in economy companies may tend to break contract

→ monopsony effect: Since firms have an upper hand at procuring large produce and farmer is barred from selling elsewhere thus firm can leverage their position to bring down prices

What can government do?

Government needs to regulate the model contract farming and sufficiently empower farmer to protect against big firms. Some features of Model contract farming act are

- empowering power of farmer against firms
- a local authority for adjudicating disputes
- contract must include sale of land
- promotion of farmer producer organisation
- ensuring the following of contract through appropriate means

Contract farming if implemented correctly has a potential to enhance farmer income, reduce agriculture waste and help to grow labour-intensive food processing industry.

13. Suggest the measures needed to improve the employability of labour force as well as increasing number of employment opportunities in light of structural changes being brought by disruptive technologies.

(250 words) 15

labour force includes all those people who are of working age and willing to work.

Measures for improving employability of labour force

- Vocational training: providing job oriented vocational training with skills relevant to demand of jobs. eg. SKAMP scheme
- digital education: with the advent of new industrial age of computing, we need to skill people into digital means. eg. PMGDCHA
- align vocational training with formal education: would help in attaining the required certification in education parallelly. eg. apprentice scheme
- involving private sector: private sector should be leveraged for developing skills that match the requirements of job. eg. NSDC runs many such programmes

→ Identification and certification of skills
to cover people in unorganised sector
who have worked for some years.

→ reforming school curriculum and
technical education

India's skilled constituted only 5% of the
total labour force and this figure is
quite low with respect to countries
like china which have upto 60% skilled
youth.

Employment opportunity against disruptive
technology

Information technology and disruptive technologies
like artificial intelligence and machine
learning pose a threat to employability
today some steps needed to improve
employability are:

- promoting research in AI and ML : A recent NITI aayog reported pointed out that India has only 50 researchers in this field
- promotion of digital literacy : Need to include programming in basic school curriculum - china has already started it
- India a data garage : New technology demands shift from labour arbitrage model, appropriate skilling so that our labour could provide digital solution
- promotion of labour intensive service sector eg medical tourism
- promoting startups in such disruptive areas catering to local problems and demands

India is at a critical juncture with 65% of population in the working age of 15-25 years. With right skilling and opportunity we can help develop the demographic dividend.

14. India's trade policy in agriculture, marred by ad-hocism and pro-consumer bias, has constrained realization of export potential, and prevented the farmers from reaping the benefits. Examine the statement and discuss ways, including government initiatives, to improve agricultural exports.

(250 words) 15

Despite being a good agriculture year India's exports in agriculture declined from 44 Billion Tonnes to 33 Billion Tonnes on account of policy measures the government took.

Problems of agri export

→ pro consumer bias : Food security takes precedence over agricultural income and thus checks are imposed on export of rice, wheat pulses etc.

→ ad hoc policy : Pulses recorded a net produce of 25 MT owing to MSP announcement, despite this government imported 5 MT of pulses leading to quit in prices.

- distortion of MSP : farmers are guided by announced prices and produce crops which may not have export potential
- stockpiling and storages are heavily regulated and thus farmers are not allowed to store and export the produce.
- sanitary and phytosanitary many countries have imposed non visible trade barriers in the form of sanitary and phytosanitary restrictions

Measures needed for export growth

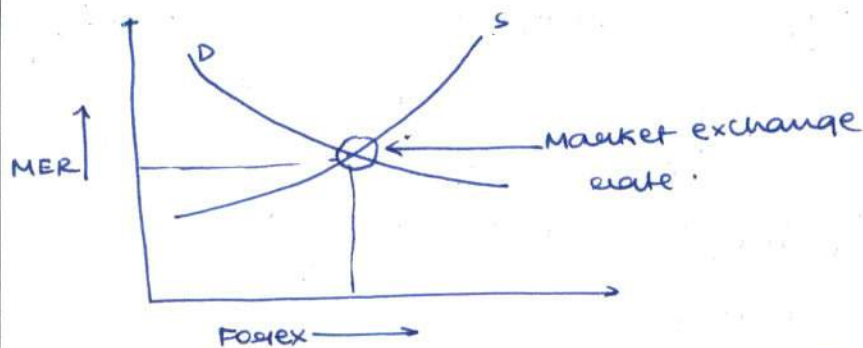
- Improved data collection about the produce and integrating local procurement with export policy
- promoting non food crop export
India could leverage its sugar and tea production for developing non food crop export.

- allowing export over a threshold
- allowing farmers stockpiling and promoting cold storages for export
- regulating the quality of export - APEDA regulates such export by apps such as HORTINET
- draft agri export policy has talked about growing export from \$3 billion to 60 billion
- APMC reform and streamlining export markets with mandis
- targeting new markets such as ASEAN

Indian farming continues to be very less remunerative for farmers and good and bad monsoon being the same sad news. Export promotion would help them ^{increase} ~~leverage~~ their farming income and lead to better condition.

15. Is currency exchange rate a suitable measure of relative economic performance of countries? Despite improving macro-economic fundamentals, trade deficit in India continues to widen. Bring out the factors responsible for this situation. (250 words) 15

Currency exchange rate is determined by market forces of demand and supply of foreign currency in a free floating economy.



Why MER is not a suitable measure to compare countries?

- depends upon export and import and in a developing country they account for much less contribution to GDP
eg. 12% for India
- does not take into account internal sector.

- may not give real picture for a closed economy with very less dependence on external sector
- local prices and inflation are governed by internal market forces and not by exchange rates.
- For comparing economic growth purchase income parity is used.
- PPP = cost of a basket of essential commodity that can be brought in either countries of same quantity

$$\rightarrow (GDP)_{PPP} = \frac{\text{Total GDP}}{(MER)_{PP}}$$

factors for increasing of trade deficit

Demand side

- Economic survey pointed out to 4 headwinds that are impacting the trade deficit
- protectionist policies: trend of deglobalisation and lesser demand has decreased exports

→ quality issue: Indian brand of exports have failed to make a mark in quality in export growth

→ lesser demand owing to slowdown witnessed in economy as was mentioned in Economic prospects report by World Bank

$$\text{Trade deficit} = \text{Exports} - \text{Imports}$$

Supply side

→ rise in price of imports like petroleum products leading to increased cost of imports

→ depreciation in currency due to flight of foreign capital $\Rightarrow$ imports price increase

→ India's manufacturing growth has been poor with ITP seeing a major decrease

→ Insufficient technological advancements and lack of ease of doing business have meant greater cost of products making them less competitive

→ decline in service exports due to new disruptive tech
India has not made enough investments in infrastructure development such as road electricity which makes our export less

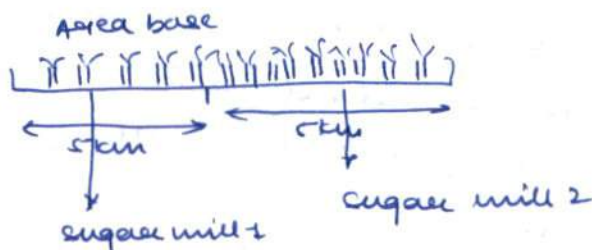
16. It will take much more than relief packages to address the problems being faced by the sugar industry in India. Discuss. (250 words) 15

Indian sugar industry with a net production of 30 million tonnes is facing multitude of problems relating to regulatory pricing and less productivity etc.

problems of sugar industry in India

As Swaminathan outlined several problems in sugar industry in India

→ less efficient sugar mills : sugarcane farmers are forced to sell their produce to sugar mill within 5 km area even though they offer lesser prices



→ regulatory pricing state government and ~~off~~ ~~set~~ central government have set up fixed fair and remunerative pricing

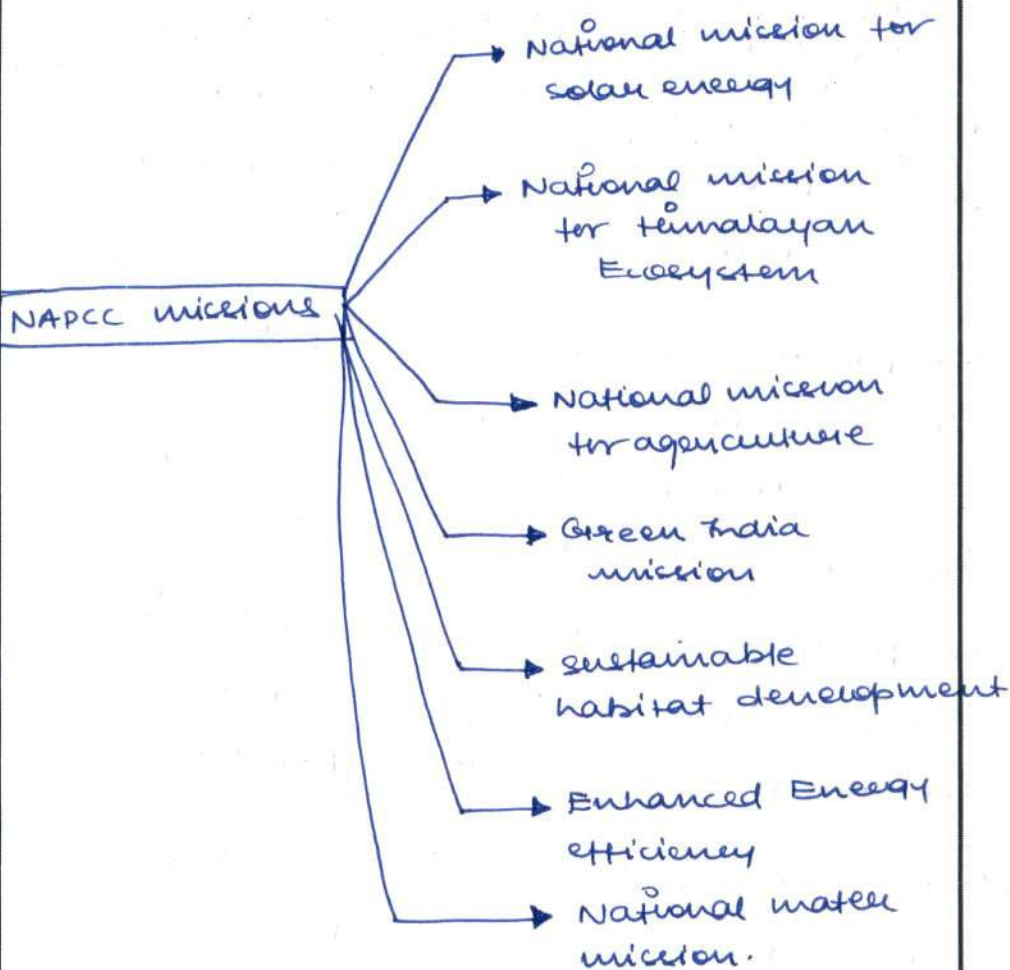
- awareness of sugar mills : sugar mills are required to purchase at higher prices due to regulation leading to credit crunch
 - compulsory fute packaging increases the cost of production of the sugar and packaging
 - not allowed to process bagasse and other waste products
 - less sugar productivity and sucrose content in sugarcane : up has over taken maharashtra as major sugarcane producer but has only 10% sucrose compared to 13% in maharashtra.
 - regulation owing to storage and stock piling : government strictly regulates storage of sugar and this leads to deficit in demand during winter months and dependence on imports.
- suggestions by ms cmantham committee

- state regulatory prices should go and only central FRP to remain
- remove the necessary packaging of sugar by fute bags
- revenue sharing model which shall allow sugar mills to pay back the farmers after selling all products
- promotion of cooperative culture as sugar mills running involves high costs.
- lesser regulation on storage and stockpiling
- allow the use of bagasse and sale of sugar for molasses to petroleum industry.

Indian sugar industry would be revived with better government policy and by ensuring that sugar industry and sugar mills and farmers earn remunerative prices.

17. NAPCC, almost 10 years old and formulated with lofty objectives, has not served as the best answer to cope with the impacts of climate change. Critically discuss. (250 words) 15

National Action plan for climate change is centrally sponsored scheme which aims to ensure India's promises of Paris treaty and realization of Nationally determined contributions are upheld.



Success of NAPCC

- India has successfully achieved targeted 20GW of the 40GW of solar power installments
- Irrigation projects such as Khet Mein Pani and More crop per drop have been a success
- under sustainable Himalayan ecosystem SECURE project has been launched for livelihood enhancement protection of snow leopard
- Ecosystems Improvement project with the aid of World Bank has been launched for state of Shardhand MP and Odisha under green India mission
- Energy efficiency has been achieved with launch of green building code by BEE and UJALA yojana by EESL, PAT etc.
- National policy on organic agriculture for promotion of organic and zero Budget Natural farming.

Challenges before NAPCC

- India is still far from targeted 100GW of solar power
- agriculture remains less remunerative and use fertilizers and pesticide continue unabated
- compensatory forests Act has failed and forests are increasingly wiped out in name of economic development.
- Required funds have not been demanded and poor implementation and monitoring.

True even though NAPCC is aided with some ~~other~~ challenges, the success of NAPCC depends on de-bottlenecking of appropriate funds and ensuring participation of local population.

18. Proliferation of nuclear weapons and the threat of their use are key concerns for global security nonetheless existing international arrangements seem to be ineffective. Comment. Also, identify the salient features of India's policy in this context and discuss whether India should join the NPT in the current form. (250 words) 15

Nuclear weapons emerged as weapons of mass destructions after second world war. Recent challenges have shown that such ~~xxx~~ weapons in the hands of unstable powers like taliban and North Korea could adversely affect world security.

Existing international arrangements

→ Prohibition of Nuclear test

→ though signed and came into enforcement yet nuclear powers chose to stay away like India, US, Israel, Russia, China etc.

→ Nuclear proliferation Treaty

- signed by 44 countries for creating deterrence against proliferation of nuclear ~~the~~ weapons.
- ~~the~~ Remains exclusionary as India not a member
- Has failed in objective as remains discriminatory towards non-nuclear powers.

→ NTCR

- for ensuring that missile • technology is not used for nuclear warheads

→ Wassenaar and Australia group

- To ensure non proliferation of dual use tech and bio and chemical weapons.

Indias policy and NPT policy

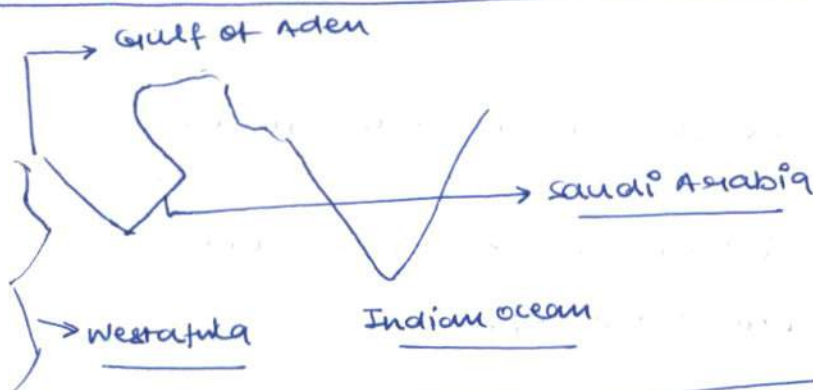
- India remains and has shown itself as a peaceful nuclear power
- "No first use policy" guides India's nuclear policy
- At the same time India remains steadfast towards realisation of self determination of non-nuclear countries
- India would continue to work towards disarmament, peaceful use of nuclear tech and non proliferation of nuclear tech

In the present form NPT requires India to dismantle its nuclear war heads and ensure international checks of nuclear arsenal. India considers it as violation of sovereignty and thus refuses to join NPT.

19. The maritime security domain requires collective multilateral and regional cooperation to combat non traditional threats. Discuss in the context of threats in the Western Indian Ocean and the recent amendments in the Djibouti Code of Conduct. (250 words) 15

Maritime security faces challenges of non-traditional threats of piracy, armed robbery, trafficking of drugs and ship hijacking.

Djibouti code of conduct aims to address such concerns and ensure development of a sustainable blue economy.



Challenges of maritime security

→ piracy and ship jacking off the coast of Somalia and Gulf of Aden

- trafficking of arms and drugs smuggle
- terrorism and rise of extremist groups such as Boko Haram on drug money.
- armed robbery
- since Gulf of Aden supports almost 90% of shipping lanes b/w Europe Asia security and safety is only possible via multilateral organisations

Jeddah amendments to Djibouti code

- Aim to develop a sustainable and viable blue economy.
- Information sharing and coordination between different countries towards enhancing maritime security.

- conducting joint exercises such as Passex between countries for ensuring coordination between countries
- Rule based and safe navigation
- curbing the menace of piracy armed robbery, smuggling in the Western Indian ocean.

With rising global trade maritime security has become a multilateral issue and organisation such as IMO can play a big role in ensuring Djibouti Code is enforced in letter and spirit.

20. India's space programme was initiated with the vision of utilising outer space for peaceful purposes, however with changing times it has the potential to play a significant role in strengthening security capabilities of India. Discuss with adequate examples. (250 words) 15

Indian space programme started in 1950s with pioneering visions of peaceful utilizations of outer space towards solving many of the problems the country is facing.

From Rohini to Cartosat

- ISRO has launched many satellites to further geo-political and national security interests of the country
- In 2009 ISRO launched RISAT which was India's satellites for national security interests
- IRNSS navigation system is launched to ~~pre~~ provide navigation technology to Indian armed forces
- Cartosat series for spectro imaging the ~~earth~~ and developing world class

optical technology to Indian armed forces

→ dedicated communication satellite
GSAT 2 for navy

→ Besides these ISRO has also improved
military communications through
dedicated GSAT series

Peaceful purposes

→ India's Chandrayaan and Mangalayaan
missions aims to further research
on moon and mars

→ South Asian satellite : India launched
a dedicated satellite for South Asia
communications

→ GAGAN : aims to assist flight navigation
systems to ensure proper landing and
utilizations of airport.

Thus from 1960s to the present India's
space programme has been shaped by
a vision of peaceful uses of outer space to

furthering India's national and geo-political interests. ISRO is fast emerging as a cheaper alternative to launch satellites in space and can leverage the vast potential the space offers.