



VISION IAS

www.visionias.in

GENERAL STUDIES (TEST CODE : 876)

Name of Candidate	Haseeb		
Medium Eng./Hindi	English	Registration Number	32697
Center	Lamia Milia	Date	28/04/17

INDEX TABLE			INSTRUCTIONS
Q. No.	Maximum Marks	Marks Obtained	- Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code). उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न-पत्र कोड, विद्यार्थी क्रमांक आदि)। - There are TWENTY questions printed in ENGLISH & HINDI इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं। - All questions are compulsory. सभी प्रश्न अनिवार्य हैं। - The number of marks carried by a question/part is indicated against it. प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं। - Answers must be written in the medium authorized in the Admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in medium other than the authorized one. प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे। - Word limit in questions, if specified, should be adhered to. प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए। - Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off. उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।
1	12.5		
2	12.5		
3	12.5		
4	12.5		
5	12.5		
6	12.5		
7	12.5		
8	12.5		
9	12.5		
10	12.5		
11	12.5		
12	12.5		
13	12.5		
14	12.5		
15	12.5		
16	12.5		
17	12.5		
18	12.5		
19	12.5		
20	12.5		
Total Marks Obtained:			
Remarks:			

75, 3rd Floor, Old Rajinder Nagar Market, Near Axis Bank, New Delhi – 110060

103, 1st Floor, B/1-2, Ansal Building, Behind UCO Bank, Dr. Mukherjee Nagar, Delhi – 110009

EVALUATION INDICATORS

1. Alignment Competence
2. Context Competence
3. Content Competence
4. Language Competence
5. Introduction Competence
6. Structure - Presentation Competence
7. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

Answer all the questions in NOT MORE THAN 200 WORDS each. Content of the answers is more important than its length. All questions carry equal marks.

12.5X20=250

1. While India has taken a number of steps in order to substantially improve its ranking in the World Bank's 'Ease of Doing Business' Index, it needs to take further action in this regard. Elaborate. Also analyse the utility of these rankings vis-a-vis India's objective of facilitating a sound entrepreneurial environment.

जहां, भारत ने विश्व बैंक के 'इज ऑफ़ डूइंग बिज़नेस' (व्यापार करने की सुगमता) सूचकांक में अपनी रैंकिंग में सार्थक सुधार करने हेतु कई कदम उठाए हैं, वहीं भारत को इस संबंध में आगे और अधिक कार्यवाही करने की आवश्यकता है। सविस्तार वर्णन कीजिए। साथ ही सुदृढ़ उद्यमिता वातावरण प्रदान करने के भारत के उद्देश्य के परिप्रेक्ष्य में ऐसी रैंकिंग की उपयोगिता का भी विश्लेषण कीजिए।

India has always been considered as a country difficult for business. However over the recent years India has taken a number of steps to improve its ranking:-
These are as:-

- New IPR policy to promote, protect innovation and commercialise IPR.
- Shram Suridha Portal to facilitate ease of Doing Business for companies.
- E-Biz platform to ensure all

information is available to the investor.

Environmental Impact Assessment notification has been amended to allow old non cleared projects to seek clearance.

New policies such as Startup India, AspirE India promote ease of availability of credit.

Land Acquisition Bill for better land clearances

More Action required

- Regulatory Cholesterol as suggested by Economic Survey present. Companies have to contribute towards Employee Pension Scheme.

- Land Acquisition still hampered by social

Impact Assessment Issues.

· Exit mechanisms are yet not fully functional

· Bank credit availability (Banks mugged by NPA's, therefore no new credit).

· Local policies promote local investment.
eg Solar panel issue

UTILITY

These rankings do play a good role in ensuring, to mark out areas where India needs to improve. Gives a list of global best practices followed. Also ensures India can look at the other countries doing well. However at times they have considered as having a one size fits all, as the requirements of developed are different from developing.

2. In wake of the agrarian crisis that the country is witnessing, discuss the need for adopting an income-centric approach in preference to a production-centric one as the basis of agricultural policy. In this context, also highlight the steps that should be taken to achieve the goal of doubling the income of farmers by 2021-22 and the challenges that exist.

देश द्वारा सामना किए जा रहे कृषि संकट के आलोक में, कृषि नीति के आधार के रूप में उत्पादन-केंद्रित दृष्टिकोण के स्थान पर आय-केंद्रित दृष्टिकोण अपनाने की आवश्यकता पर चर्चा कीजिए। इस संदर्भ में, 2021-22 तक किसानों की आय दोगुना करने का लक्ष्य प्राप्त करने के लिए जो कदम उठाए जाने चाहिए, उनके साथ-साथ विद्यमान चुनौतियों पर भी प्रकाश डालिए।

Agrarian Crisis has been plaguing the country since ages. India has consistently looked at a production centric approach and it is high time it shifts to an income centric approach because.

It would give better returns to the farmer

Farmers would be encouraged to adopt GM crops that help in earning a better income.

World gradually lead farmers towards Cash crops that are of high value.

Production
Centric:
Total production

Income
Centric:
Income generated

• Issues of stockholding, rotting of food crops will decrease.

• Improve the condition with respect to farmer suicides (as assured income present).

• Farmers can reinvest earned money to improve quality of land
on the other side

- Food security of the country hampered.
- Gradually phase out crops such as rice, wheat etc (Necessary for nutrition)
- Would lead to entry of GM crops without proper analysis

Steps to be taken to double the Income:

• Improve seed quality for the farmer through seed village programme.

· Promote better irrigation methods such as drip, irrigation to decrease salinisation

· Soil specific crops to be planted using Soil health Card

· Invest in R&D for agriculture. Use of Modern threshers etc.

· Logistic support, Better MSP etc.

Challenges

· Indian agriculture is Monsoon driven.

· MSP restricted to a few crops (Effectively for 2).

· Old methods of cultivation followed eg Flood irrigation

· R&D support is poor.

Way forward

Govt - should continue support farmers. Use of Fasal Bima, Land Leasing Act may help

3. It is argued that India's fiscal centre of gravity has rapidly shifted from the Centre to the States. Analyse the statement in context of the debate on fiscal discipline. Also, enumerate the key recommendations of the N.K. Singh panel on Fiscal Responsibility and Budget Management Act.

यह तर्क दिया जाता है कि भारत का राजकोषीय गुरुत्वाकर्षण का केंद्र तेजी से केन्द्र से राज्यों की ओर स्थानांतरित हुआ है। राजकोषीय अनुशासन पर वाद-विवाद के संदर्भ में इस कथन का विश्लेषण कीजिए। साथ ही, राजकोषीय उत्तरदायित्व एवं बजट प्रबंधन अधिनियम पर एन. के. सिंह पैनल की प्रमुख अनुशंसाओं को सूचीबद्ध कीजिए।

Fiscal policy is related to the "expenditure and revenue policies of the govt.

The Central govt. Over the years has been the fulcrum of fiscal changes.

However recently states have been playing a role as :-

- Devolution by Fifty-fifth F.C. has ensured 49% funds for states. They spend themselves

- Decrease in number of Centrally sponsored Schemes means states are designing their own schemes.

- States are now raising loans on their

Comm without Central guarantees. Adhere to FRBM Act at the same time.

- Attract investments to their states via (Business houses eg West Bengal) to ensure better revenue.

No, longer depend on discretionary grants after the Planning Commission dissolution

- States are willing to invest in social sector schemes without Central support eg JSK Sashy Scheme for girls.

However

- Centre still holds the key w.r.t certain important core of the core schemes such as MGNREGA.
- Some additional grants still passed to states by Finance Commission on

the basis of fiscal discipline

NK Singh

- The Fiscal Deficit target gradually decrease to 2.5 % by 2023
- Revenue deficit to decrease to 0.80%.
- A new Fiscal Council to be constituted
- Give ^{multi} multiyear forecasts (fiscal)
- Independent assessment of fiscal performance
- Use escape clause to breach yearly Fiscal deficit targets only in case of National security issues, war etc.
- Fiscal Council to be constituted and consulted before this clause.
- A debt to GDP ratio of 60%

CONCLUSIONS: Thus, even though Centre of gravity has shifted to states, yet new recommendations need to be followed for fiscal

prudence

4. Strategic sale of state-run firms is a prudent step to deal with the challenges being faced by the public sector enterprises in India. Comment. Also enumerate other measures that can be taken in light of NITI Aayog's suggestions in this regard.

भारत में सार्वजनिक क्षेत्र के उद्यमों द्वारा सामना की जा रही चुनौतियों से निपटने के लिए राज्य-संचालित उद्यमों की रणनीतिक बिक्री एक विवेकपूर्ण कदम है। टिप्पणी कीजिए। साथ ही इस संबंध में नीति आयोग के सुझावों के प्रकाश में उठाए जा सकने वाले अन्य उपायों को भी सूचीबद्ध कीजिए।

Strategic sale is defined as where greater than 50% control is given to an outsider, which enables him to take control of the management.

It may help as :

- Bring efficiency in the functioning of the public sector.
- Better technology to be introduced. Old obsolete technology to be shunned off.
- Help in improving profitability of the public sector enterprise by cutting through red tape etc.

- Quality of service delivery improved ;
Better products for the public.
- Help to transfer better dividends to
the government coffin. Enable government
to spend better.
- Help to increase availability of funds to
improve capital investments.
- Can diversify its functions eg from
Marketing to Exploration.
- Facilitate quick decision making ; Improve
effectiveness.

However :

- Will lead to mass labour lay offs :-
Job problems.
- Work conditions for labourers itself

- may not improve.
- Social sector benefits may be taken away from workers.
 - Strategic sale may allow privatisation of some of governments most prestigious assets.

Other measures to improve status

- NITI Aayog has suggested "strategic sale of PSU's in distress".
- Closure of certain loss-making PSU's eg HMT etc.
- Use of land, machinery for other benefits to the exchequer.
- Use Voluntary Retirement Scheme (Golden Handshake) for employees.
- Thus NITI Aayog's recommendations need to be followed. Along with class investment in PSUs

5. Shell companies in India are neither legally defined nor properly understood. Analyse in the light of recent developments, prevalent understanding and steps required to effectively deal with shell companies.

भारत में शेल कंपनियां न तो कानूनी रूप से परिभाषित हैं और न ही उनके विषय में उचित समझ है। हाल के घटनाक्रमों, व्याप्त (प्रचलित) समझ और शेल कंपनियों से प्रभावी ढंग से निपटने हेतु आवश्यक कदमों के आलोक में विश्लेषण कीजिए।

Shell companies are mostly defined as companies having no specific business activity.

As however we look at it these companies are not legally defined or properly understood as:-

- Used by giant business hubs to promote Transfer pricing (No regulation on such transfers)
- Limits of shell companies are stuck at 27 lakhs (companies invest 27 lakhs and promote shell (No proper definition))
- Limitation of Benefit Clause not effectively

used in the definition of shell companies (eg DTAA issues)

DTAA helps shell companies to siphon off funds to distant or no tax lands.

No broad parameters delineated eg

- a) Related to no. of employees a shell company should have

- b) Related to branch offices a company should have

- c) Status of Board of directors.

No, legal laws to deal with shell companies except say GAAR.

Shell companies run by legal firms.

No, definition about their legality

Steps required to deal

- Tax Information Agreements between different countries eg India - Singapore etc.
- A Global minimal rate of taxation to ensure no tax avoidance.
- Follow G20 recommendations of Base Erosion and Profit Shifting related to tax avoidance.
- Issues DTA's amended for taxation.
- Rules of Place of effective Management implemented.
- Limitation of Benefit Clause followed.

CONCLUSION:

Shell companies are dangerous. One up used to define them accurately and have a universal definition. This would act as the 1st step.

5

6. If a larger population in India is to be involved in the economy in a big way, Small and Medium Enterprises (SMEs) are key. Elaborate. Also discuss the challenges faced by the SME sector in India and give an account of the measures taken by the government to deal with these.

यदि भारत में एक बड़ी आबादी को अर्थव्यवस्था में बड़े पैमाने पर सम्मिलित करना है, तो लघु और मध्यम उद्यम (SMEs) महत्वपूर्ण हैं। सविस्तार वर्णन कीजिए। इसके साथ ही, भारत में SME क्षेत्रक द्वारा सामना की जाने वाली चुनौतियों पर भी चर्चा कीजिए और इनसे निपटने के लिए सरकार द्वारा उठाए गए कदमों का विवरण भी प्रदान कीजिए।

Small and Medium Enterprises form the backbone of this economy. They are the key to progress because:-

• A huge chunk of population is involved in employment with MSMEs.

• Promote local demand, therefore help in running the economic cycle.

• Supply basic goods such as Combs, soaps, items of daily use to different parts of the country.

• Protect BoP crisis, by exporting a

number of products -

- Help decrease pressure on cities by providing village based employment.
- Adopt a multisectoral approach by entering into areas such as defence.
- Ensure women participation in the economic sector.
- Become an easy way to diversity employment (Move from agriculture to manufacturing)
- Help the vulnerable section to participate in employment.

Challenges

- Funds issue (Credit availability not present)
- Skills are obsolete. Not in sync. with modern needs.

- Obsolete machinery (Stuck with old lathe based tools etc)
- Product quality not upto date - Plans seen.
- Mostly logistic facilities (Marketing measures not efficient).
- Government support is large missing yet however Govt. has taken a number of steps as:
 - MUDRA for refinancing and easy credit for MSMEs
 - ASPIRE India to promote entrepreneurship for MSME sector.
 - Scheme for Upgradation of Technology of MSMEs to improve technology.
- CONCLUSION: A number of steps have been taken. Consistent implementation will help

14

7. What are the reasons for the growing informalization of industrial labour in India? Discuss the issues associated with the phenomenon and reforms required to deal with them.

भारत में औद्योगिक श्रम के बढ़ते अनौपचारिकरण के क्या कारण हैं? इस परिघटना से जुड़े मुद्दों और उनसे निपटने हेतु आवश्यक सुधारों पर चर्चा कीजिए।

Informal sector employment is defined as workers not working under a registered setup. Informalization occurs in the unorganised sector. India suffers from this because...

- Contractualization of workers after economic reforms
- Hire and fire policy followed by the companies.
- Formal sector employment is missing in India.
- Companies mostly outsource workers from agencies. (Responsible only for wages)

Industrial disputes Act of 120 day
limit not followed.

- Employee Pension Scheme Contribution of 12% acts as a burden.
- Bring Benefit tax withdrawn and thereby more informalisation.
- Companies don't want to have labour union problems.
- Companies don't want to provide quarters, social sector benefits etc.

Issue

- Pushes more workers to work for daily wages jobs.
- No, Job security provided, vulnerability is there.

- Workers families suffer (No education for Children etc.)
- Pushes Urban - Rural Migration (Therefore disproportionate stress on agriculture,
- Pressure on public sector employment increases.

Reforms

- Govt. has devised a Textile package where a contribution 8% for EPS comes from the govt.
- Revoke "Single Benefit tax" to benefit employees.
- Amend Industrial Disputes Act similar to Rajasthan (Increase limit to 300 days)
- Outsourcing agencies to have facilities for worker benefits.

CONCLUSION: Above steps may be taken,
A sustained dialogue at the same time may help to solve this issue.

8. A number of far-reaching developments have taken place in the local and global energy space which have to be reflected in our own energy policy framework. Discuss.

स्थानीय और वैश्विक ऊर्जा क्षेत्र में कई दूरगामी घटनाएं घटित हुई हैं, जिन्हें हमारी अपनी ऊर्जा नीति के ढांचे में प्रतिबिंबित होना है। चर्चा कीजिए।

Energy ^{sector} has diversified. Earlier the energy sector hinged on Petrol, and Coal. However over the years a number of developments have taken place. These are as :-

- Shale gas discovery has pushed oil sector companies towards it (India should consider it).
- Methane hydrates found in deep oceans are now getting considered (Use Bay of Bengal, Arabian sea to explore)
- Coal gas, apart from Coal has been gaining prominence as a better fuel.

Currently not regulated by any policy

Renewable sources



Wind should be promoted in areas of Gujarat etc (Norway, Holland already use it).

Solar energy extensively used by West Asia & Africa.

Tidal power stations in France, generates a lot of electricity and decrease thermal consumption.

As petrol has decreased, coal resources exhausted (Nuclear energy via use of Thorium etc should be used - eg France, China)

Globally tax benefits are provided for exploration (India should do the same).

Marginal fields are given as supplements globally to originally bidded fields (India should amend its Marginal field policy to do the same).

Green initiatives are promoted via R&D use etc.

Thus these developments have taken place globally, and India should try and incorporate them for better development of its energy sector. It will help in meeting its needs for years to come.

9. The Indian IT-BPM (Information Technology-Business Process Management) industry is a global powerhouse today and its impact on India and the world has been unprecedented. Comment. Also, mention the challenges being faced by India's IT-BPM sector.

भारतीय IT-BPM (Information Technology-Business Process Management या सूचना प्रौद्योगिकी-व्यापार प्रक्रिया प्रबंधन) उद्योग आज एक वैश्विक शक्ति का केंद्र है और भारत एवं विश्व पर इसका प्रभाव अभूतपूर्व रहा है। टिप्पणी कीजिए। साथ ही, भारत के IT-BPM क्षेत्रक द्वारा सामना की जा रही चुनौतियों का भी उल्लेख कीजिए।

Indian IT-BPM sector contributes to the services sector of the country. It has played a huge role in India as well as the world as:

India:

- Generated "white collar jobs" for graduates.
- Decreased excess dependence on agriculture.
- Helped in decreasing "disguised employment" in the country.
- Pushed "Urbanisation" and growth of cities.
- Contributor to govt. exchequer via taxes.

etc.

Helped in shaping India's Balance of Payment issues.

They have ensured that "Engineering graduates" are placed at the earliest.

World:

- Services have been provided to the world (via just phone calls),
- Ushered in an IT boom in the world.
- led to an increase in competition in the IT sector of the world.
- Contribute to world economic growth, world GDP etc.

Challenges by IT-BPM sector.

- Package offered are low. Salary

not up to date.

IT infrastructure in India collapses. (Computer systems still use old software).

Skilled personnel availability is slow.

As Global demand is low, therefore service export is low.

• Internet still remains a huge problem.

Connectivity issues.

• Wrong timings, exhaustive, hand-supply in bits and pieces

REFORM AND CONCLUSION

IT-BPM is progressing rapidly. The govt. should design a policy to promote Internet and exacerbate Bharat Net programme. Apart from this + minimum salaries defined for personnel etc.

10. An effective multi-modal logistics and transport sector will make the Indian economy more competitive. Analyse.

एक प्रभावी मल्टी-मॉडल लॉजिस्टिक्स (बहु-रूपात्मक संभरण) और परिवहन क्षेत्रक भारतीय अर्थव्यवस्था को और अधिक प्रतिस्पर्धी बनाएगा। विश्लेषण कीजिए।

Indian economy suffers from a number of problems such as investment, credit, NPA's etc. However out of these multi modal logistic and transport sector issues remain. Effectiveness in these sectors will help the economy as:-

Road

- Better effective transport of goods.
- Inter state trade increased even in hilly states eg (J&K, Himachal)
- Intra state trade promoted.
- Decrease cost of transport of goods via faster transport -

Railways

- Will ensure goods are transported over longer distances
- Connectivity increased (Rust to city connectivity can be improved via railways)
- Railway connections will bring goods from different places (Quality competition) will take place.
- Other Benefits
 - Costs due to logistics will decrease (Therefore cost of goods decreased)
 - Large quantities of goods transported in short span of time.
 - Will promote "export sector" of the economy.
 - Will help decrease dependence on

- impacts to protect Balance of Payment.
- Will connect "Hinge states" such as North-East.
- Promote investment in these states as logistic support is available.
- Help local economy by quick disposal of raw material.
- Promote service sector by better transport of people (for tourism etc)

CONCLUSION

For this a number of steps such as Golden Quadrilateral and Diamond Quadrilateral need to be promoted. Along with this Sethu Bhasanam, Green Highways will go a long way in making transport efficient.

11. Climate change threatens sustainable development, impairs socio-economic development and reinforces cycles of poverty across the globe. In this context, discuss the utility of climate risk insurance as an instrument within a comprehensive climate risk management system.

जलवायु परिवर्तन पूरे विश्व में संधारणीय विकास को जोखिम में डालता है, सामाजिक-आर्थिक विकास को क्षीण करता है और गरीबी के चक्र को मजबूत बनाता है। इस संदर्भ में, व्यापक जलवायु जोखिम प्रबंधन प्रणाली के अंतर्गत एक साधन के रूप में जलवायु जोखिम बीमा की उपयोगिता पर चर्चा कीजिए।

Climate change is associated with changes in the climatic conditions over a long period of time. Exacerbated by anthropogenic causes it may lead to destruction of cities, render people jobless, decrease education and employment and affect economic development of a nation. As such climate risk insurance has come. It may help as:-

• Compensate "developing nations" for any disastrous effects of climate change.

• Help them to improve infrastructure, i.e.

the post and pre disaster phases.

Help in relocation of people from climatically vulnerable areas.

Help to promote investments as they would be backed by insurance.

Jobs would be created even in most vulnerable areas.

~~no~~ Cycles of poverty to some extent would be dealt with.

Ensure social sector development of a vulnerable group of population.

Help to build climatically resilient cities for future.

Investments won't fizzle out from

Vulnerable areas
Issues

- Funding for Insurance remains a
Concern.
- USA has backed out of Paris deal ∴
won't agree for insurance.
- Coal sector etc still on the list. These
insurance won't do anything.
- No consensus on insurance.

REFORMS AND CONCLUSIONS

A multi-pronged strategy needs to be
followed. On one hand consensus developed
for insurance facilities, on the other
side fossil fuels decreased and green
sector promoted.

१४

12. Why are women particularly vulnerable to the impact of natural disasters? Also analyse, with adequate examples, how women can play a more effective role in disaster risk management cycle.

प्राकृतिक आपदाओं के प्रभावों के प्रति महिलाएं विशेष रूप से सुभेद्य क्यों होती हैं? साथ ही, समुचित उदाहरणों के साथ विश्लेषण कीजिए कि किस प्रकार महिलाएं आपदा जोखिम प्रबंधन चक्र में अधिक प्रभावी भूमिका निभा सकती हैं।

Women are associated to be vulnerable along with old, children etc. As such women are seen to be vulnerable to natural disasters. There are a number of reasons as to why women are vulnerable to impact of natural disasters.

- Confined to homes at many places. Cannot run in case of earthquake, floods etc.

- Women are seen as working as fisherwomen in vulnerable areas of Tsunami. As such come under the threat of Tsunami.

- As they mostly deal with child care,

etc, therefore precious time is lost in moving the infant at the time of disaster.

After a disaster a chaos is seen. Women are vulnerable to robbers trying to steal expensive jewellery etc.

In some cases, issues arise due to being prone to rapes etc.

In some cases, women who are frail and weak, come under the effect of disasters.

As construction workers, come under the threat of earthquakes etc.

Due to issues of menstruation ^{pregnancy} come under the effect of disasters in post disaster stage.

Women role:

- Helping "Awareness generation" of public especially these children etc.
 - During disasters can cook food for the injured.
 - Help women suffering from pregnancy issues - (Helping delivery of child etc).
 - As women are soft spoken, can help in calming down tension in the post disaster stage. These caring tendencies, sensitivities can be channelled effectively.
 - Can effectively deal with children who are injured.
- CONCLUSION:
- It's not only women, but every sector that is vulnerable and needs to contribute.

13. In view of the seriousness of heat waves and its consequences, greater attention is required for dealing with it as a natural disaster. Analyse in the context of recent developments and the actions taken by relevant government bodies.

हीट वेव (ग्रीष्म लहर) और उसके परिणामों की गंभीरता के आलोक में, एक प्राकृतिक आपदा के रूप में इससे निपटने हेतु अधिक ध्यान दिए जाने की आवश्यकता है। हाल के घटनाक्रमों और संबद्ध सरकारी निकायों द्वारा उठाए गए कदमों के संदर्भ में विश्लेषण कीजिए।

Heat waves are defined by WMO as temperatures above 50°C for 5 consecutive days.

In areas where temperature exceeds 45°C , heat wave is declared.

IMO says if temperature exceeds average temperature by 3°C for 3 consecutive days.

Why greater attention required?

Leads to dehydration, extreme loss of water.

In some cases, it has even lead to death of individuals.

- Effects work timings of office, work suffers.
- Leads to dizziness, work inertia.
- Schools closed, therefore education affected.
- Leads to bouts of vomiting, unconsciousness.
- Overcrowding of hospitals seen due to heat wave issue.
- Creates heat islands in the city



As such greater attention is required.

Odisha has recently taken the lead in this initiative:

- Use of electronic boards to inform about heat waves.
- Use of SMS's to inform.

· In application dealing with heat waves in Odisha -

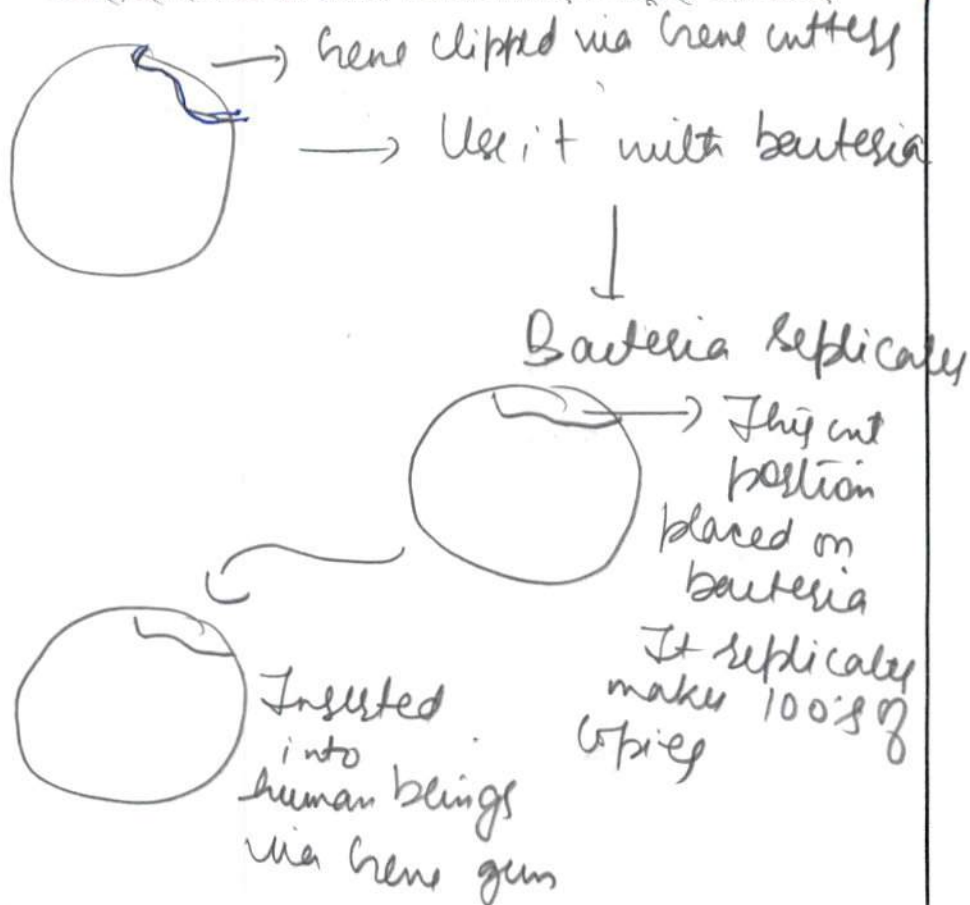
- Water coolers placed at different places.
- Heat shelters organised by the govt.
- School timings changed from 7 to 12:30
- In extreme cases, schools closed

Delhi Municipal Corporation has started an air-conditioned bus stand at Jaypat Nagar.

- DMC → has asked for more air-conditioned buses.
 - Municipalities of Mumbai, Ghopal have installed water coolers at different places.
- These steps have been taken.

14. While genome editing offers immense potential benefits in the area of healthcare, there are a lot of apprehensions regarding its use. Discuss.

जहां, जीनोम एडिटिंग स्वास्थ्य सेवा के क्षेत्र में बहुत अधिक लाभ की संभावना प्रस्तुत करता है, वहीं इसके उपयोग के संबंध में काफी आशंकाएं भी मौजूद हैं। चर्चा कीजिए।



Gene editing refers to editing of genes to produce new genetic forms.

Benefits

- Human beings

Effectively diseases such as Cancer,

TB can be used.

- Can be used to regenerate organs (via stem cell replication).

- Health expenditure decreased as disease decrease.

- Promote lesser use of medicines such as antibiotics.

AGRICULTURE

- Can be used to throw off rotten food produce (eg Rotten gene replaced by better gene).

- In Crops (drought resistant GM Crops) can be developed.

- Longevity of farm produce. Shelf life enhanced.

Plasma:

Disease specific drugs developed. Vaccines

developed .

Issues

- May promote "DESIGNER BABIES", where everything designed by parents
- May lead to artificial tampering with a natural process.
- Effectively goes against ethical considerations .
- Safety of crops etc via gene editing not known.
- Life of Designed babies remains to be seen
- May lead to population explosion .

CONCLUSION

Thus, gene editing is a step that can be considered, but it has to be started from crops on a pilot basis .

204

15. Discuss various ways in which supercomputers have benefitted mankind over the years. Also enumerate the objectives of the National Supercomputing Mission and the mechanism for its implementation.

उन विभिन्न तरीकों पर चर्चा कीजिए जिसके माध्यम से विगत वर्षों में सुपर कंप्यूटरों ने मानव जाति को लाभान्वित किया है। इसके साथ ही राष्ट्रीय सुपरकंप्यूटिंग मिशन के उद्देश्यों और इसके कार्यान्वयन के तंत्र को भी सूचीबद्ध कीजिए।

Super computers are computers with a very high speed. These were firstly designed by USA, followed by Russia, China etc. Super computers have benefitted mankind as:

- Fast calculations, thereby save time.
- Use for effective implementations of projects such as space launch etc (Here only super computers can calculate heat, pressure changes etc.
- Have taken human errors out of the equation.
- Promotes quick calculation in stock exchanges to gauge the effect of a

particular step on the economy.

- Used to decipher through Thousands of files of data say related to Counterterrorism in intelligence agencies.

- Image the effects of say Climate change on the world (Super computers take into consideration past effects and use it to give a desired result.

Objectives of Nat. Super Computing Mission

- Promote development of Super Computers in India. (^{Develop} Super computing Centre at Pune)

- Ensure efficient skilled personnel for development of Super computers. (Capacity Building)

- Decrease dependence on foreign use of super computers
- Make India a super computing hub
- Ensure supercomputers are in sync with global super computers.

Implementation

A super computing centre was started in Pune. And India proceeded to form the PARAM series supercomputers.

India has form PARAM computers that can go for million calculations

However Capacity building needs to be augment, R & D promoted for super computers.

16. Widely seen as a disruption for the traditional banking and financial institutions, cryptocurrencies have gained significant traction lately, at the same time creating a regulatory nightmare for regulators across the globe. Discuss.

पारंपरिक बैंकिंग और वित्तीय संस्थानों के लिए व्यापक रूप से व्यवधान के रूप में देखी जाने वाली, साथ ही विश्व भर में नियामकों के लिए एक नियामकीय दुःस्वप्न का निर्माण करने वाली, क्रिप्टोकॉइनेस हाल ही में महत्वपूर्ण पकड़ स्थापित की है। चर्चा कीजिए।

Cryptocurrencies are digital currencies such as Bitcoin used for transactions via digital means. However lately they have gained traction and created a regulatory nightmare because:

Why gained traction?

- Use for terrorist financing of bomb blasts -
- Used by extortion racket ^{for} by extortion money
- As emerged as an effective way to hide black money.

- Bitcoin can be generated via computers
(Anyone can do it)
- Used as a Money Laundering source
to hide illegal wealth.
- Used to hide payments. Making income
~~opaque~~ opaque.
- Used by agencies to bypass the
formal financial system.
- They cannot be tracked as source
and buyer are anonymous.

Why nightmare?

- NO, regulatory regime to counter
Bitcoin.
- Bitcoin agencies websites available
online and offer bitcoin.

- Origin of money is concealed. No trail left behind.
- Once payment is made, no way of tracking it down.
- No laws, international agreements to deal with Bitcoin.

Reforms and Conclusion.

Govt. should first start with slowly and steadily introducing bitcoins into the system to see its effects. Online websites to be regulated. Strict punishment for its use in case of Money Laundering etc. Entry into formal system will help leave a trail.

17. An internationally-binding agreement to strengthen the Outer Space Treaty of 1967 is both desirable and increasingly a necessity. Analyse in view of the traditional and emerging challenges in this arena.

1967 की बाह्य अंतरिक्ष संधि को मजबूत बनाने हेतु एक अंतरराष्ट्रीय बाध्यकारी समझौता वांछनीय और साथ ही एक आवश्यकता दोनों है। इस क्षेत्र में पारंपरिक और उभरती हुई चुनौतियों के आलोक में विश्लेषण कीजिए।

Outer Space Treaty of 1967 was signed to promote efficient use of space. It said that no weapons of Mass Destruction will be placed on space, No country to enforce its sovereignty on space, space to be used for benefit of all. However as times have passed, there is a need to ~~strengthen~~ ^{strengthen} it because :-

- Issues of space junk eg Kessler's space syndrome have cropped up.
- Commercialisation of space travel has started eg space travel offers etc.

- Heavenly bodies are used to find origins of life eg trace etc.
- Insurance in case of liability and damage by a launching state.
- For space travel, insurance facilities to space tourists.
- To regulate use of space areas (Not to tamper with sensitive areas of moon).
- Space warfare has come up (Lethality of weapons increased).
- GPS, etc used to spy and snoop on other countries.
- To regulate space commerce eg pricing of satellite vehicle launchers etc.

- To ensure no country dominates space.
- Equitable benefit for all from space resources.
- Space should remain a non-sovereign resource.

Reforms and Conclusion

A number of steps can be taken eg
signing of new space treaty, passage of
space laws by governments to regulate
use of space.

International cooperation to deal with
spacejunk, space tourism etc.

— 0 —

18. Even after nearly 60 years in existence, AFSPA remains at the centre of debates with respect to countering violent insurgencies, role of the states and local communities. Discuss.

अस्तित्व में आने के लगभग 60 वर्षों के बाद भी, हिंसक उग्रवाद का मुकाबला करने और राज्यों व स्थानीय समुदायों की भूमिका को लेकर AFSPA वाद-विवाद के केंद्र में बना हुआ है। चर्चा कीजिए।

AFSPA has been imposed in different states eg J&K, Manipur, parts of Assam etc. AFSPA has been at the centre of debates because:-

- Gives a soldier immunity, even to the process of causing death.
- Soldiers who have been tried, have been tried so in ~~civilian~~ military courts and not civilian courts.
- On one hand terrorism has continued, but human rights violations in Kashmir, Manipur have taken place.

- It takes local police, law & order out of the equation.
- Security forces take on different operations
- Allegations of a) Burning houses
b) Rape of women,
c) Collateral damage.
- Even Justice Verma Committee and Ind ARC have been quoted to say that AFSPA has to go.
- It has exacerbated alienation in sensitive areas. People have become more radicalised.
- Yashwant Sinha recently said that due to AFSPA we have emotionally

lost the people of valley.

- States have been bypassed in such areas. States want their fold back.

Reforms.

Supreme Court in Naga People's Union for Civil Liberties gave a list of Do's and Don'ts eg. Fire only when it is in public interest, use help of local bodies, work in sync. with locals. Do not indulge in matters outside your domain. Along with this last year the Supreme Court said that any Act of death even in disturbed areas has to be investigated. Above steps may be followed.

176

19. Analyse the challenges and opportunities inherent in the push for indigenisation of defence production in India. Also, identify the measures through which indigenous manufacturing of defence equipments is being encouraged by the Government.

भारत में रक्षा उत्पादन के स्वदेशीकरण की दिशा में निहित चुनौतियों और अवसरों का विश्लेषण कीजिए। साथ ही, उन उपायों की भी पहचान कीजिए जिनके माध्यम से रक्षा उपकरणों का स्वदेशी निर्माण सरकार द्वारा प्रोत्साहित किया जा रहा है।

Defence production in India has been at the centre of debate. The challenges are as follows:

- Technology availability is poor
- Skill availability of personnel is low
- Ordnance factories are not working in the country.
- Funding for R&D has been poor and abysmal.
- Disproportionate spending on Army Recruitment.
- Failure of agencies of DRDO to

Augment Capabilities.

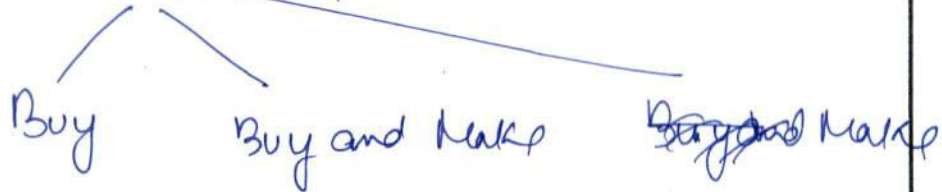
Opportunities :

- India is the largest importer of defence weapons
- Countered by external and internal challenges such as Pakistan.
- Internally have to deal with separatism.
- Local collaboration (Strategic partnership possible) -

Cont. steps to encourage

- Defence procurement policy released
↓
Preference given to IDDM (Indigenously Designed, Developed and Manufactured)

3 Categories present.



For buy 2 categories are present
Buy (local), Buy foreign. Preference
to local

For Buy and Make (around 40% content
should be Indian)

Defence FDI (increased) to 100%
Even though all is not automatic.

Strategic partnerships of local and
foreign firms promoted.

Defence factories revived.

Above steps are taken.

20. India's ability to pursue a clear-cut strategic vision depends on its ability to improve institutional cooperation and coordination between the armed forces and civilian bureaucracy. Discuss.

भारत द्वारा एक सुस्पष्ट रणनीतिक दृष्टि का अनुसरण करने की क्षमता वस्तुतः सशस्त्र बलों और सिविल नौकरशाही के बीच संस्थागत सहयोग और समन्वय में सुधार करने की क्षमता पर निर्भर करती है। चर्चा कीजिए।

Over the years, it has been seen that India has suffered from externalists eg Chinese side and internalists such as Kashmir, +WE areas etc. However it has been seen that more and more disagreements have cropped up within the civilian bureaucracy and the forces.

This has decreased institutional cooperation and hampered development of a clear cut policy. More cooperation would help as:

- Forces that need to be deployed for different areas eg Border internal security
- The technology that is required for the Armed force to deal with enemies-
- The protocols that need to be given eg in case of cease fire violation etc.
- Which agency would lead in Counter terrorism operation
- Which agency would deal with terror attacks eg in Pathankot air ^{attack} ~~attack~~ NSG commandos ~~were~~ ^{were} called, even though Army was on a standby.
- In Mumbai Attack, NSG Commandos

Reached late for the action (showing why coordination is necessary).

It would help in defining the relations that are to be maintained eg Army is fighting on one hand and handles its diplomacy pursued on the other.

How it would be done?

Create a Defence Committee with members from Armed forces (3 force) Chiefs and Cabinet Secretary, Foreign Secretary and Nat. Security Advisory. Cab. Sec. as senior most bureaucrat may Chair that. They should develop a blueprint to deal with such problems, ensure consultation in case of action, weapons delivery, etc.