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GENERAL STUDIES (TEST CODE : 876)

Name of Candidate	JUNAID AHMAD		
Medium Eng./Hindi	ENGLISH	Registration Number	32718
Center	JAMIA	Date	

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
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:

INSTRUCTIONS

- 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।

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

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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.

जहाँ, 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।

According to recent Ease of doing business ranking, India stands at 130 out of 190 countries. There is a slight improvement of 1 point from the previous years.

The target set by our PM is to bring the country under 50 by 2018 and for that further action is required.

• Parameters of ease of doing business

↳ Time for starting a business

↳ Equipping the house with water and other connection

↳ Electricity connection and time taken

↳ Completing legal formalities

↳ Winding up in case of exit.

India has improved on first two parameters

Starting a business	2014	2016
	34 days	26 days

Getting electricity	100 days	46 days
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But on the other fronts India has fared poorly. In case of winding up of firms our indicators are even poor than some African countries.

• Further action required

- (a) labour reforms which hinders formalisation of work force.
- (b) Infrastructure development in the form of connectivity, industrial clusters.
- (c) Resolution - Quick resolution in case of winding up of business.
- (d) Dedicated desk as for India-japan to ensure single window clearance.

Government has taken several steps in this regard

(a) Labour reform

Law < Payment of wages act
Maternity benefit act

Governance < Shram suraksha portal
National career service

(b) Resolution < Insolvency and bankruptcy code
Amendment to Sarfaesi act

(c) Ease of doing - E biz for industries
Single window clearance

• Utility of these rankings

↳ Credit ratings of country increase which helps in inflow of capital

↳ Investor sentiment builds up for investment

↳ FDI flows in which can make India successful

↳ Moody report that GDP can grow 08% with these reforms

Thus there is a need for further reforms to make India an investor friendly country

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।

Agriculture employs, 58% of population, uses 57% of land, consumes 90% of groundwater yet only contributes to 17% of GDP.

• Agrarian crisis in the country

- ↳ Fragmentation of land (80% small and marginal farmers)
- ↳ Productivity is very less
- ↳ Subsistence farming and disguised unemployment
- ↳ Ground water depletion
- ↳ Environmental hazard with faulty agri practices.
- ↳ Farmers suicides

The focus is always there on increasing the productivity in the sector. Green revolution, Irrigation are steps in this regard. There

is a need for income centric model as the basis of agricultural policy

(a) Farmers income

There need to be focus on increasing farmers income which can make agriculture viable

↳ Mr. swaminathan recommended two things

- ~~Reduce~~ Input cost should be reduced
- MSP should be 50% + Production cost

(b) Food processing industries

This could create backward and forward linkages with the development of cold chain, warehouses, infrastructure etc.

(c) Reduction in losses

lot of farm produce is lost in the process. The income model should focus on it

Doubling farmers income is a major challenge and a holistic approach is needed in this regard.

(a) Institutional reforms

- Consolidation of land holdings
- Digitalisation of land records
- Contract, cooperative farming

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(b) Infrastructural reforms

- ↳ Irrigation potential which is 60 million hectares need to be increased
- ↳ Food processing industry need to be established
- ↳ Good quality seeds need to be made available

(c) Extension services

- ↳ APMC reforms to facilitate buying and selling
- ↳ Crop insurance to protect farmers
- ↳ Information dissemination through kisan call centre
- ↳ Soil health card for increasing productivity
- ↳ Agriculture credit through land leasing law

(d) Diversification $\begin{cases} \text{Agro forestry} \\ \text{Horticulture} \\ \text{Aqua culture} \end{cases}$

• Challenges associated with it

- (a) Fragmentation of land and subsistence agriculture
- (b) Lack of public investment
- (c) Rain fed and monsoon vagaries
- (d) Lack of storage, ware houses and infrastructure

Thus there is a need to provide PURA as envisaged by A.P.J. Abdul Kalam to make rural areas and agriculture real sector of growth in economy.

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 centre of gravity is getting inclined towards states. Economic survey of 2016 pointed out that states have breached the target of 3% FD in the year 2016.

While centre is taking proactive steps to control it with 2017 target set at 3.2% of GDP, despite of slow down, states are reeling under pressure to breach the target.

Reason for it

- (a) UDAY scheme for reviving discoms resulted in debt take over by state government. This increased the fiscal burden.

- (b) Private investment is not coming up due to which states have to spend through public funding. This has resulted in increasing fiscal deficit.
- (c) Market borrowings without centre's approval has further aggravated the problem. In the coming times also the picture is dim due to following reasons
- ↳ 7th pay commission and resulting expenditure out of it.
 - ↳ loan waivers announced by state
 - ↳ High interest payment on the loans taken.

N K Singh committee was constituted to look into the matter and reviewing of FRPM.

• Its recommendation

(a) Fiscal leverage till ~~60~~ 2019 as the centre can continue with 3% of GDP till the time.

(b) Instead of FRBM, fiscal and debt management act should be brought in.

(c) 'Escape clause' from the set target in case of national calamity.

(d) Instead of FD target should be debt to GDP ratio

Currently 68% of GDP
It should be brought into 60% of GDP by 2023.
→ 40% states
→ 20% centre.

(e) Instead of FD target, debt ceiling should be focused on.

This will help in containing the debt and taking states and centre on path of fiscal discipline.

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 refers to the disinvestment of majority shares so that the management goes in the hand of different player.

This is considered as a tool for, overcoming the challenges faced by public sector.

• Challenges

- (a) Governance - Dominated by government appointed people and issues of crony capitalism is there.
- (b) Infrastructure - Due to lack of funds, there is no expansion of them.
- (c) Capital - Dependent on government for infusion of money.
- (d) Loss making - PSU's like Air India, BSNL

are under debt of ₹50,000 crore and operational cost is very high.

• Benefits of strategic sale

- (a) Government can focus on welfare and redistribution services.
- (b) Private sector involvement would bring in expertise and efficiency in these sectors.
- (c) Divestment funds could be used for budget deficits and social service program.
- (d) Cutting edge technology and R&D would increase.
- (e) Base of doing business as governments' presence in unnecessary sector is not considered good.

NITI aayog has also suggested many other measures in this regard

(a) Capital

- ↳ Raising of capital from market through commercial borrowing.
- ↳ Sale of minority shares to bring in capital.

(b) Governance

- ↳ Independent directors need to be appointed.
- ↳ Schemes like Indradhanush for ailing Banks and PSU's.

(c) Strategic partnership with foreign and private firms to revive the PSU's keeping the management in the hands of government.

There is a need for improving the governance of these PSU's. Along with it, loss making ones like Air India, BSNL which have small market share need to be privatised for better utilisation of resources in the country.

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 those which are set up in tax heavens and low tax countries, in order to avoid tax and gain huge profits.

eg in Panama paper leak case, 1000 of shell companies were there in the country for the purpose.

In India they are not legally defined and nor properly understood.

Legal Definition

- These companies are set up to exploit tax loopholes in the countries.
- FDI coming from Mauritius, Cayman Island in India is said to be from these companies.

- It is difficult to differentiate between them due to legality and registration of these companies with host country.
- In Panama paper leak, companies were floated for this purpose but investment in the country make it difficult to take action as it could destabilise the economy.

(b) Underland ing

- ↳ Used for money laundering and other purpose
- ↳ P-notes and derivatives used.
- ↳ Round tripping for tax evasion
- ↳ Funding of organized crime from this money.

These shell companies evade taxes and result in inequalities.

• Steps required to effectively deal with it

(a) Domestic

- ↳ GAR need to be implemented to check out substance of investment.
- ↳ Place of effective management (POEM) also need to be implemented
- ↳ Base erosion and profit sharing (BEPS) agreement

(b) International

- ↳ DTAA treaties need to be revisited
e.g. India Singapore with rights for India
India Mauritius to tax capital gain.
- ↳ Information sharing through financial action task force.
- ↳ Multi lateral institutions like World bank IMF to keep a check on them.

This will help in curbing the menace of such shell companies which have resulted in tax evasion and inequalities.

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 contribute 38% to GDP, 40% to exports and employ over 8 crore people in the country.

These industries are important for the economic and inclusive development of country.

• Importance of them

- (a) Manufacturing - 38% of manufacturing comes from these industries.

'Make in India' can be successful with the development of these.

- (b) Regional development as industries like textile, leather, wool are located in remote

Areas:

- (1) Employment - More than 8 crore employment is generated through it.
- (2) Agriculture - SME's are involved in agriculture and any growth in them have direct impact on the sector.
- (3) Informal sector which contributes 80% of employment and 50% of GDP is involved of these firms.

• Challenges faced by SME sector

- ↳ Access to credit - as they don't have dedicated funds.
- ↳ Technical expertise is less and they face problems in expansion.
- ↳ labour laws such as minimum wages act make it difficult
- ↳ Marketing channels are less for their growth.

↳ laws like industrial disputes act, maternity benefit act, make them unproductive.

o Measures taken by government to deal with these

(a) Credit

↳ Indian aspiration fund

↳ SMILE fund under SIDBI

↳ MUDRA bank for refinancing.

(b) Schemes

↳ Stand up India, start up India

↳ Zero defect, zero effect for SME's

↳ Compulsory procurement in public purchase.

(c) Marketing

↳ E biz for single window clearance

↳ NAM for agricultural produce.

→ Governance

↳ Labour reforms such as Shram suraksha portal

↳ National career service portal.

Apart from these ~~there~~ of ~~is~~ a need for formalising the informal economy to reap full benefits of it.

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 contributes to 80% of employment generation in the country.

Reasons for growing informalization

- (a) Agriculture which constitutes 50% of population is largely informal.
- (b) Labour laws such as factories act forces the industries to keep the number below 10.
- (c) Laws like Industrial disputes acts where retrenchment can't be done without govt permission.
- (d) Underemployment and voluntary unemployment as highlighted by economic survey.
- (e) Contract labour which is increasing

as a result of shift from primary to secondary and tertiary sector.

(f) Skill mismatch - According to India Skill report only 2.3% of Indians have got formal skill training.

Issues associated with the phenomenon

- ↳ Jobs are unproductive as said by Economic survey
- ↳ Small firms have less access to credit, technology and other incentives.
- ↳ Labourers' social security is not taken care of e.g pension, provident fund.
- ↳ Ease of doing business gets hampered which impact industrial growth.
- ↳ Labourers say in industrial matter issues due to informalisation.
- ↳ Frictional unemployment due to volatile nature of sector.

• Reforms required to deal with them

(a) Education

↳ Skill development

↳ Vocational training need to be imparted

(b) Reforms in labour laws

↳ facilitate growing of small firms

↳ factories act need to be amended

(c) Promotion of MSME's like textiles

↳ They contribute 38% to GDP

↳ formalisation could help in the development of these firms.

↳ labour intensive and social benefit.

(d) Development of agriculture with mechanization
IT and food processing industries.

Government has taken steps with

Rajasthan amending their factory act,

provisions of skill through PMKVY, DDUGKY

and ease of doing business reform to

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।

India's per capita energy consumption is 745 kWh which is expected to rise to 5000 kWh by 2050.

Rising energy demands across the world has resulted in far reaching developments.

(a) local development

- ↳ Focus on renewables with target of 175 GW from solar, wind
- ↳ Target of providing electricity to all by 2019 with schemes like DDUGJY, JRDY etc.
- ↳ Moving away from coal based power generation
- ↳ Development of indigenous nuclear reactors for steady source of energy.

(b) International development

- ↳ Paris climate deal and proposal to curb green house gases.
- ↳ INDC submitted and targets assigned to countries.
- ↳ Discovery of shale gas and other alternate energy source.
- ↳ Reduce dependence on oil due to volatility in the region.
- ↳ Moving away from nuclear based power generation.

NITI aayog has come out with Draft energy policy which should reflect these changing developments.

(a) Coal based generation - (300 billion tonnes coal)
60% of energy generation is through coal. In the short run there is a need to provide coal for energy development.

But in the longer run it should be replaced with renewable sources.

(b) Technology

Use of smart meters, smart grids, micro grids should be accelerated for advancement in the sector.

(c) Finance

Transition will require large investment which should be done through global funds like GEF, GCF and setting up of \$100 billion fund as agreed under Paris deal.

(d) Renewable energy

International solar alliance, for solar energy and wind, hydropower - run of the river project need to be promoted to ensure INDC compliance.

This will help in sustainable development of energy sector in the country.

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 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।

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।

India has a network of 66000 km of railways, 50 lakh kilometres of roads but still the transport sector is not that efficient.

A multimodal logistics and transport sector will make the economy more competitive.

- (a) Connectivity to last mile services will increase.

Road - last mile delivery

Railways - Nodal connectivity

Airways - By cities

Waterways - Port to hinterland

- (b) Balanced regional development as

backward areas will grow with this

- (c) Competitiveness of products will increase with reduced cost of transport.
- (d) Make in India will get promoted with the development of multi modal transport.

Steps taken by government

(a) Waterways

- ↳ Merchant Shipping bill
- ↳ Jal Marg Vikas project
- ↳ Sagarmala

(b) Airways

- ↳ National aviation policy
- ↳ UDAN for regional connectivity.

(c) Railways

↳ Rail suraksha kosh

(d) Roadways

↳ Quadrilateral highway .

↳

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।

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 सुश्रेष्ठ 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।

According to World Bank report women and children are most vulnerable to the impact of natural disasters.

Reasons for it

(a) Sanitation and health related issues are more with women.

Due to menstruation and other things, lack of water aggravates the problem.

(b) Climate refugees

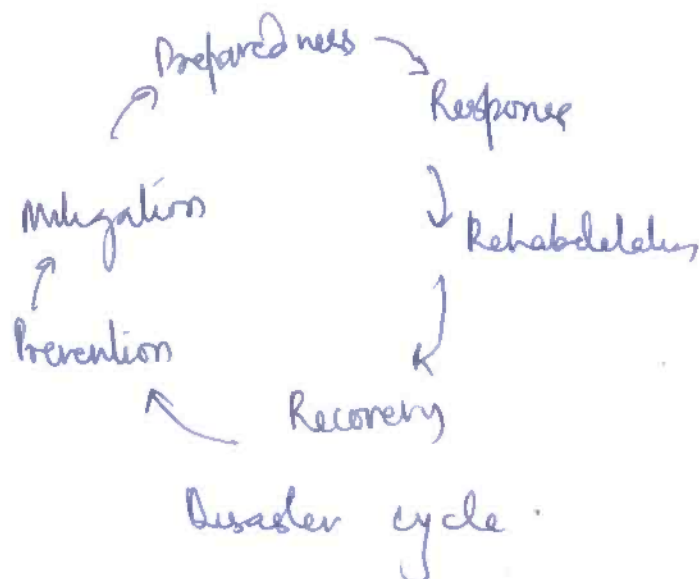
Displacement due to disasters result in temporary shelters where they are totally dependent on their male counterpart.

(c) Exploitation and security issues

Due to the displacement cases of molestation, rape are very prevalent.

(d) Pregnant women, and women with new born and infant have not only responsibility of themselves but young one also.

Women can play an important role in disaster risk management cycle.



अ) विशेषज्ञता

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 period of intense temperature accentuated with hot blowing winds. The change in climate has increased the frequency of these winds and it has become a matter of concern.

• Seriousness of heat waves

↳ Frequent occurrence in hot season due to increased temperature.

↳ Climate change and its effect on the heat waves

↳ Urban heat island aggravating the problem

↳ Deforestation which increase the problem.

• Consequences

↳ loss of lives

In 2016 more than 2000 people died due to heat waves in different parts of India.

↳ loss of biodiversity such as endemic plants, corals which can't sustain high temperatures.

↳ Health issues such as dehydration, fever, pain resulting in severe health problems.

↳ loss of economic development as health expenses, closure of schools, industries increases.

Looking into the issue government has taken various action

(a) Declaration Criteria for heat wave has been set

Normal maximum - 40°C in plains
- 30°C in hills

Departure from normal $5-6^{\circ}\text{C}$ - Heat wave
 7°C - Severe heat wave.

(b) Meteorology department - Information disseminate -
in advance.

(c) Urban local bodies

- ↳ Water kiosks on road side
- ↳ Shelters at bus stand pavement.
- ↳ Plantation along roads and highways.

(d) Hospitals

- ↳ Dedicated beds for patients
- ↳ Priority with saline drops for such patients

(e) Society

- ↳ Drinking water while moving out.
- ↳ Keeping shade with umbrella or other items

(f) Educational institutions

Call us : 8460920222 Schools closed during heat wave Visit us : www.visionias.in

This will help in integrated approach
and tackling of such disaster.

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Don't write
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(इस भाग में
कुछ ना लिखें)

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।

Genome editing refers to the cutting, addition and removal of defective genes for health and other purposes.

• Benefits of it

↳ Recently Crispr technology has come for editing of genes.

↳ Genetic disorders like sickle cell, thalassaemia could be corrected.

↳ Incurable diseases like Cancer could be treated.

↳ Life expectancy could be substantially improved with the technology.

↳ Life threatening diseases in the womb could be avoided with mother and

child health care.

↳ Burden - financial and Psychological related to such diseases could be removed.

But along with benefits there are lot of apprehensions regarding it.

(a) Ethical Issues

↳ Issue of designer babies concept would come in

↳ Not only diseases, people will start selecting specific genes eg fair colour, tall stature, blue eyes etc.

↳ loss of uniqueness of an individual.

(b) Health care issues

↳ Doctors will become next to god as they could treat anything.

↳ Stem cells like pluripotent and Mesencephalic of it.

↳ DNA and genome mapping

(c) Regulation issues

↳ State laws related to regulation of such therapy.

e.g. Abortion in India which is restricted by Termination of pregnancy act.

Thus there is a need to tread the path cautiously and to use the technology for disease and health issues and not to change the traits of people on the whims and fancies of the society.

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 very high speed computing devices which can perform difficult task with ease.

e.g. Param super computer of India

Ways in which they have benefitted

(a) Economy

- ↳ Computation of data's
- ↳ Creation of clouds for business purposes.
- ↳ Stock exchange and other institutions
- ↳ Flourishment of IT sector.

(b) Environment

- ↳ Monitoring of disasters like earthquake, Tsunami.
- e.g. National Monsoon Mission
- INCOIS

↳ Wind, humidity and other patterns

(c) Space

- ↳ Development of atomic clocks
- ↳ Space stations and communication
- ↳ Satellite synchronization.

(d) Technology

- ↳ launching of rockets, missiles and other devices
- ↳ Research and development in health, education and other sector.
- ↳ Cryogenic engines in case of India

National ^{super} Computing mission has been launched in the country.

Objectives of it.

- ↳ Development of computer base in the country
- ↳ Cutting edge technology

- ↳ Usage in health, education, economy and environment sectors.
- ↳ Param and related advancement with high speed computation.

• Mechanism for its implementation

- ↳ Dedicated institution like ISRO, National institute for super computing for developmental purpose.

- ↳ International collaboration with countries like Russia, U.S.A.

- ↳ Public private partnership

Along with this there is a need for developing chip based industry which could act as a catalyst for super computers in the country.

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, क्रिप्टोकॉरेसीने हाल ही में महत्वपूर्ण पकड़ स्थापित की है। चर्चा कीजिए।

Crypto currencies are digital currencies which use block chain technology and are in huge demand now a days.

Many of the users are transacting in these currencies disrupting traditional banking institutions.

• Reasons for it

↳ Facilitating business as hassles of finance are removed.

↳ Any amount can be transferred without regulation of acts like FEMA, FEMA

↳ Acceptability of these currencies among people and institution

↳ Issues of appreciation and depreciation related to normal currency are not there

↳ Instrument of investment

	2008	2017
1 Bit coin	5 \$	250 \$

↳ Inflation and loss of real value is not there

Issues with its regulation

↳ Anonymity - Tracking of these currencies is not possible.

↳ Usage for black marketing, terrorist funding and other activities.

↳ No control of any central bank over it.

↳ Issue of cyber attacks which could cripple the system.

↳ Avoidance of taxes which could impact governments developmental project.

There is a need for coordination of central banks over it.

legally backed crypto currencies can be promoted for business development and faulty ones be banned for protecting consumer interest in the country.

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 is said to be the future ground of warfare in the world.

The increasing importance of it with satellites, space station, rockets in the arena has necessitated the strengthening of outer space treaty.

• Challenges in this arena

(a) Traditional

↳ Keppler's syndrome where the density of material in low earth space is increasing.

↳ Satellite communication which is now linked to every instrument and part of the world. e.g. China fired a rocket to destroy its own satellite.

↳ Exploration of celestial bodies like Moon, planets - Mars, Venus, asteroids etc

↳ Threat of Nuclear weapon being put up in the space.

↳ GPS technologies which are guided through satellites of NAVIC system

↳ Social contributions of telemedicine - tele education which could disrupt

(b) Emerging challenges

↳ Cyber domain and threats related to it . eg Buzznet virus which was implanted in Iran's nuclear facilities

↳ Space tourism which is on the verge of taking off

↳ Climate change and geo engineering solution like placing of large mirrors

in space.

↳ Large telescopes with research facilities for gravitational waves, dark energy, dark matter etc.

Thus an internationally binding agreement is required to strengthen outer space treaty 1968.

- (a) Peaceful use of outer space.
 - (b) Non deployment of nuclear and other weapons in the space.
 - (c) Regulations related to cyber domain and use of it.
 - (d) A body to regulate space tourism in the coming times.
 - (e) An international space agency to look in the launching of satellites.
- This will help in peaceful use of

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 came in 1958 in order to provide stability in the ^{disturbed} regions.

But even after 60 years, it has not been successful and is a centre of debates.

• Provisions of AFSPA

- ↳ Permission to kill in case of threat
- ↳ Arrest without warrant
- ↳ Search and seizure without warrant
- ↳ Immunity to officials for their act.

Armed forces through this act are required to do police job with immunity from any action against them.

(a) Countering violent insurgencies

- ↳ Required for curbing such violence.
- ↳ for unhindered action against such tendencies.
- ↳ In J&K and North east where such things are common, APSPA provide powers to forces to take hard action.
- ↳ Militancy in Kashmir and separatism in Northeast.

But even after 60 years these tendencies have not been curbed. There are still instances of violence in the region. Apart from this issue of

- ↳ Human right violation by forces.
- ↳ COAS Bikram Singh said that in Northeast major conflicts are now of group clashes not insurgencies.

(b) Role of states

- ↳ Armed forces perform the role of police in the region.
- ↳ As state police is not equipped, these tendencies could be curbed with these forces.

Issues

- ↳ deployment of central forces
- ↳ Law and order is a state subject
- ↳ lack of coordination between state police and central forces e.g. Subana attack

(c) Local communities

They are the most affected one as they feel they are secondary citizen on whom special laws are applicable.

↳ Issue of Rape by armed forces e.g. Kanan Poshpur

↳ Extra judicial killing e.g. in Manipur

↳ Alienation of people as AFSPA

↳ Injustice
↳ Intolerance
↳ Immunity

There is a need for humanising AFSPA to make it more sensitive.

→ Justice Verma committee - Cases of rape should be kept out of AFSPA

→ Jeewan Reddy commission - In case of immunity government should public reasons for it.

This will help in ^{Page 54 of 60} ~~reducing~~ ^{alleviating} the violence as well as instilling confidence in the people.

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 is merely 35% of the needs of the country. The rest is imported from other countries.

Government has focused on indigenisation of defence production as it could reduce the dependency of country from foreign imports.

• Opportunities in indigenisation

- (a) Security issue will be safeguarded as imported items may have bugging and other equipment.
- (b) Boost to make in India as it will spur manufacturing in the country.
- (c) Employment generation with the coming.

of investment

(d) Small and medium industries will benefit as procurement from them will increase.

(e) Reduced dependency on imports will help in saving of foreign exchange of the country.

(d) Reduced cost - indigenous products are less costly e.g. Tejas Plane.

• Challenges

↳ Lack of technical expertise

↳ Time and cost overruns

↳ Corruption and issue of crony capitalism

↳ Lack of such huge capital for investment

↳ Non availability of defence manufacturing firms.

↳ Lack of R&D in the institutions.

• Measures through which indigenisation is being promoted

(a) Defence procurement policy 2015
Under it a new category (IDDM)
indigenously, designed, developed and manufactured is being promoted.

5 categories

↳ Buy (Indian)

↳ Buy and make (Indian)

↳ Make

↳ Buy and Make

↳ Buy (Global)

(b) Strategic partnership model is being prepared for public procurement of defence equipment. Indian companies will be given preference.

(c) DRDO, HAL and others are being promoted for development e.g. LCA, TEJAS, SUBMARINES.

Apart from these ^{Page 876 of 60} need to be promoted in the sector along with imports of cutting edge defence equipment to ensure balance in the sector.

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।

The nature of warfare is changing and it demands the change in strategy also. With the advent of cyber warfare, nuclear threat, maritime issues there is a need for better institutional cooperation between armed forces and civilian bureaucracy.

a) Institutional cooperation and coordination

A gen SB Shekatkar committee was constituted for this purpose. Its recommendations need to be implemented.

↳ Integrated theatre command for army, navy and air force.

North command for china

South command for maritime

West command for Pakistan.

↳ Chief of defence staff

- A five star ranked officer need to be there as one stop person for advice to government.

- He will also head the chief of staff committee which decides in case of coordination between the forces.

1) Naresh chandry committee was also constituted for improving forces and civilian ^{bureaucracy} coordination.

Its recommendation

↳ Staff of defence ministry need to be posted in military headquarters for some time to get acquainted with working of the armed forces.

↳ Similarly armed force officials should be deployed in defence ministry for better coordination.

This will help in improving forces-bureaucracy relation which is essential for healthy development of the country.