



GENERAL STUDIES (TEST CODE : 1068)

Name of Candidate	Deepak Kumar Dubey		
Medium Eng./Hindi	ENG	Registration Number	74631
Center	ORN	Date	9/9/2018

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	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:			

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

भारत में नवीकरणीय ऊर्जा को संधारणीय रूप से बढ़ाने में कई चुनौतियां हैं। विश्लेषण कीजिए। साथ ही, चर्चा कीजिए कि इन चुनौतियों से निपटने के लिए क्या किया जा सकता है।

In the backdrop of increasing global warming and India's excessive reliance on fossil fuels for meeting its ever-increasing energy needs, there is a pressing need to sustainably scale Renewable energy in India. However, challenges abound:-

- (i) Financing :- It has been estimated that meeting India's 175GW renewable energy target by 2022 will require \$200 Billion of financing
- (ii) Pressing developmental challenges make it difficult to divert financial resources to Renewable Energy (RE) sector
- (iii) Import dependence for critical components like solar wafers and lack of domestic intellectual property (IP) base
- (iv) Land availability :- As RE projects require large amount of land per unit power generated
- (v) Lack of technical & financing support from developed nations despite Paris commitments
- (vi) RE, particularly solar energy cannot be used as base load

vii) Lack of domestic R & D, qualified technical manpower and institutional capacity
Steps needed to address these challenges

- PPP mode for financing
- Developing land banks
- Multilateral sources for financing (eg ADB, WB, AIIB)
- Promoting R & D (International Solar Alliance can be a great catalyst)
- Resolving IP disputes (eg with US at WTO)
- Investing in energy storage systems research, critical for solar energy
- Capacity building (eg scaling up the Solar Mitra Programme)
- Promoting domestic manufacturing through policy support & fiscal incentives

Therefore, while challenges abound in scaling up RE in India and meeting India's INDCs committed at Paris-2015, a multi-pronged approach with both public & private engagement and an enabling policy environment can help overcome those.

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

हाल ही में, भारत में शहरी विकास का वित्त पोषण करने के लिए सरकार द्वारा आरंभ की गई नीतियां और संकेतक वर्तमान चुनौतियों से निपटने हेतु महत्वपूर्ण हैं। नगरपालिका बंधपत्रों (म्युनिसिपल बॉण्ड) के विशेष संदर्भ के साथ चर्चा कीजिए।

The Urban population in India as per 2011 was 37 crores and is projected to increase to 60 crores by 2030. A large-scale urbanization requires robust and plentiful financing, backed by enabling policies and robust indicators. Some Policies and indicators are :-

- Smart Cities Mission → About 120 cities to get 500 crores of financing over 5 years and will leverage these to build infrastructure through PPP/SPV mode
- AMRUT :- To build infrastructure like sustainable transportation, waste management etc. in cities other than smart cities
- Pradhan Mantri Awas Yojana Urban :- For scaling affordable housing
- Metro Policy for enhanced urban mobility
- Ease of Living Index :- To rank cities on various liveability parameters

→ star rating for cities under swachh
bharat (to promote cleanliness)

To meet these objectives, significant amount
of private financing is needed. Moreover,
Urban local bodies need to take the lead
in ~~to~~ ~~going up~~ procuring financing. Municipal
Bonds are one such source.

⑩

⑪

Municipal bonds are issued by Urban
local bodies to finance infrastructure
project. The investors in such bonds are
paid from project cash flows.

For ULBs stretched for financing,
Municipal Bonds can help increase invest-
ments in urban transport, municipal
waste management, drinking water supply
etc. However a few enablers are needed

- Sound finances
- Good accounting practices and transparency
- Getting investment-grade credit rating
- Corruption-free governance

Recently about 1000 ULBs were
rated and more than 50% obtained
investment grade rating.

The need of the hour is to
scale up municipal bonds to sustainably
scale infrastructure upgradation in
urban areas.

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**

कई मुद्दों के लगातार अवरोध बने रहने से भारत की ग्रामीण जनसंख्या का एक बड़ा हिस्सा अभी भी 'वित्तीय रूप से अपवर्जित' है। चर्चा कीजिए। इन मुद्दों से कैसे निपटा जा सकता है और हाल ही में सरकार तथा RBI द्वारा इस संबंध में उठाए गए कदमों का विश्लेषण कीजिए।

Financial inclusion means the provision of bank accounts enabled with digital banking that can be leveraged to deliver a host of other products and services of Direct Benefit transfer, pension and insurance products.

Jan Dhan Yojana and JAM trinity have been key enablers of digital inclusion (32 crore accounts opened; 80000 crore of deposits mobilized; 1,50,000 crore of subsidies transferred through DBT)

However a large section of rural population remains digitally excluded because of.

- lack of digital literacy
- Low penetration of bank accounts in far flung areas
- Lack of provision of branches, ATMs and Banking Correspondents (BCs)
- low penetration of financial products
- Poor digital connectivity in rural areas

Ways to address the issue

- Improving digital literacy
- Increasing the BC network by better incentives for BCs
- Expanding the DBT programme
- Increasing internet penetration
- Involving local bodies in digital literacy programmes for better last mile delivery
- Increasing insurance and pension coverage

Measures taken

- Digital Saksharta Abhiyaan (DISHA)
- RBI's amended rules on branch networks (where banking services provision by BCs is counted as a rural branch)
- 24x7 channel for spreading digital literacy
- Increasing DBT coverage
 - Kerosene
 - Foodgrains
 - Scholarships
 - LPG (UJJWALA)
- National Optical Fiber Network (NOFN) now covers 1,00,000 gram panchayats.

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

'पर्यावरणीय लेखांकन' पद से आप क्या समझते हैं? पर्यावरणीय लेखांकन आरंभ करने के औचित्य की चर्चा करते हुए, भारत में इसकी स्थिति पर प्रकाश डालिए।

Environmental Accounting is an approach of measuring the environmental impact of a firm's operations and using it for guiding the firm's sustainability actions. Environmental Accounting (EA) is an affirmation of the triple bottom line concept, where profits are not the sole motive of a corporation



Triple Bottom Line

EA, therefore, looks at the impact on planet by corporate activities, eg

- environmental pollution (Unilever's kodaikanal mercury poisoning for example)
- resource use (eg PepsiCo's Palakkad plant ~~over~~ overdrawing groundwater)
- Deforestation and land use change
- loss of biodiversity

Rationale behind EA

- Polluter Pays Principle → Corporates have a responsibility to pay for the adverse of impacts due to operations
- Increasing environmental footprint of Corporations
- Corporates are an integral part of the community and therefore decreasing environmental impact is important
- Measurement of impact is the first step in mitigation measures.

Status in India

- SEBI directive that top ~~400~~ 100 BSE firms must publish sustainability reports annually along with annual reports
- Many Indian corporates are voluntarily part of Global Reporting Initiative (GRI) that promotes EA
- Environmental and Social Impact Assessments (EIA and SIA) aim to measure impact of proposed projects and are integral part of Land Acquisition Act, 2013.

There is need to further mainstream EA for better sustainability outcomes for firms.

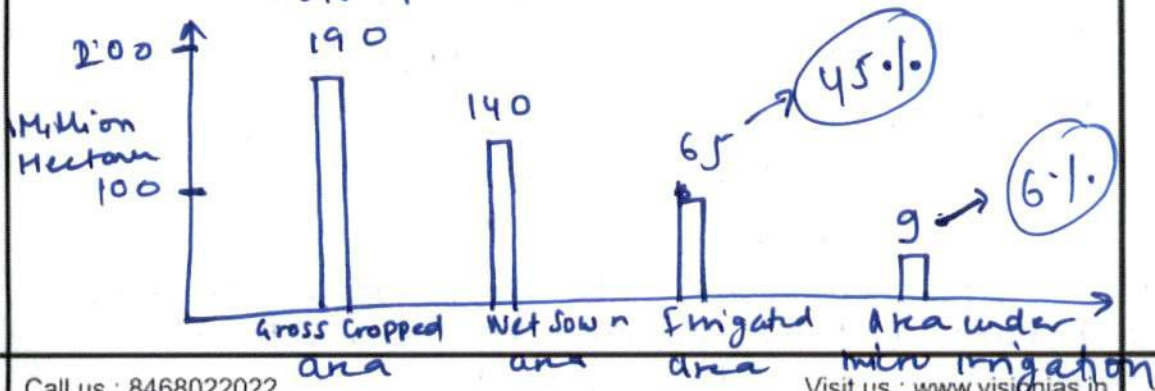
5. While access to irrigation is important, efficiency of water use is equally, if not more, crucial. Examine. (150 words) 10

जहाँ सिंचाई तक पहुँच महत्वपूर्ण है, वहीं जल उपयोग दक्षता भी यदि अधिक नहीं तो उतनी ही महत्वपूर्ण है। परीक्षण कीजिए।

In the backdrop of climate change that is characterized by rising temperatures and erratic precipitation, access to irrigation becomes extremely important. In the unirrigated areas, global warming could reduce farming income by 20-25%. ~~Economic survey~~ (economic survey) and therefore increasing irrigation coverage is important. Irrigation is also important to:

- ensure food and nutrition security
- promote sustainable livelihoods
- reduce rural distress
- contain food inflation
- Improve soil health and contain land degradation

However progress on irrigation coverage has been slow:



The efficiency of water use, i.e. water used per unit crop output is equally important, because

- India's per capita water availability of $1545 \text{ m}^3/\text{person}/\text{year}$ makes it 'water stressed'
- The rainfall ~~da~~ has been ~~decre~~ decreasing (1970: 120cm; 2015: 119cm)
- Rainfall is unevenly distributed across India and is received in 4-5 months
- Flood type irrigation wastes a lot of water and essential nutrients
- Water demand from non-agricultural sources (households, industries) is increasing.

Thus there is a pressing need to promote water efficiency. Several initiatives have been taken in this regard

- PM Kishu Sinchai Yojana
 - More Crop Per Drop
 - Increasing irrigation coverage
- Atal Bhujal Yojana (ABHY)
- Increasing micro irrigation coverage (now 9 million hectares) through subsidy & policy support

further expanding irrigation coverage & efficiency is paramount for sustainable agricultural development

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

आपदा जोखिम न्यूनीकरण के एक समग्र दृष्टिकोण के लिए, देशज पारंपरिक ज्ञान को मुख्यधारा में लाने और उसे आधुनिक तकनीकों से जोड़ने की आवश्यकता है। विश्लेषण कीजिए।

As per a recent UN office of Disaster Risk Reduction (UNISDR) report, India is one of the most vulnerable countries globally as far as displacement potential of disasters is concerned. As such, using a holistic approach to disaster risk reduction (DRR) ~~and linking~~ using a combination of both traditional knowledge and modern methods is needed.

Traditional Methods

- Local communities have, over centuries, built their own coping mechanisms.
(e.g. 2004 Indian Ocean Tsunami did not affect indigenous Tribes and their habitations much)
- Local communities have perfected design techniques suitable to disaster risk & profile of the area.
(e.g. Uttarakhand floods of 2013 did not damage traditional wood and stone houses as much)

→ Women play ~~and~~ an important part in disaster mitigation measures that have been used traditionally by communities

Modern Methods

- Can help build strong and resilient local infrastructure like roads, dams, community buildings
- Can help develop superior building materials that take inspiration from locally used materials
- Can provide robust early warning ~~to~~ that can reduce damages from disasters
- Can make information dissemination and capacity building better through the use of modern digital technologies
- Geospatial Technology can help in better land use and habitation planning and thus help in DRR

Therefore what is needed is a good mix of traditional and modern methods to build resilient infrastructure and for increasing the capacity of communities to cope with disasters. It is of utmost importance that community be at the centre of DRR planning for robust and sustainable results.

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

खाद्य विकिरण (food irradiation) से आप क्या समझते हैं? इसके कुछ विशिष्ट अनुप्रयोगों पर प्रकाश डालते हुए, भारत के लिए इसकी प्रासंगिकता का परीक्षण कीजिए।

Food irradiation is the controlled exposure of raw and manufactured food products to nuclear radiations like Gamma (γ) rays and X-rays. Irradiation can kill harmful microbes that have the potential of harming human health if taken along with food.

Some of the unique applications are:-

- To increase the ~~shelf life~~ shelf life of food products
- To reduce spoilage at all stages in the food value chain
- To treat food items prior to exports to destinations that have very strict quality standards
- In food processing industries, before final packaging of the food
- In ready to eat food items
- In hospitals where it is extremely important that microbes do not reach the food plate of patients with low immunity.

Relevance for India

- High spoilage (upto 15% ~~of~~ for food and vegetables, leading to a wastage amounting to Rs. 40000 crore) in the food ^{value} chain
- Indian food exports ~~not~~ to developing world frequently face sanitary & phytosanitary (SPS) measures based rejections (eg Alphonso Mangoes in EU)
- Focus on Food Processing to increase value add (currently less than 10%)
- For success of schemes like SAMPAADA and Mega Food Parks
- High disease burden due to communicable diseases ~~that~~ that are often caused by microbes taken with food
- Poor maternal and child nutrition status.

Thus irradiation technology is extremely important in India and must become a critical component of the agri and food value chain. Fiscal incentives under the Mega Food Parks are a good start to increase irradiation coverage.

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

जहां प्रौद्योगिकी के दुरुपयोग ने फेक न्यूज़ (झूठे समाचारों) के प्रसार को बढ़ावा दिया है, वहीं प्रौद्योगिकी की सहायता से ही इस खतरे पर अंकुश भी लगाया जा सकता है। सविस्तार वर्णन कीजिए।

Fake news is a news items based upon wrong facts. These wrong facts can be due to a variety of reasons:-

- Improper source checking
- Deliberately planted to spread misinformation
- To further subversive/dangerous propaganda

The spread of fake news has taken alarming proportions and misuse of technology is one of the key factors abetting it:-

- Mobile phones, particularly smart phones have become ubiquitous (Indians have 125 crore phones)
- 45 crore Indians are online
- Various social media applications (Facebook, Twitter, Whatsapp) help spread fakenews to hundreds and thousands of other people simultaneously
- It is difficult to check the authenticity of ~~source~~ news all the times for users

The spread of fake news is alarming because it has been:-

- used by terrorist groups
- used to spread communal hatred
- used to spread misinformation about child trafficking and led to lynchings.

However, fake news can be curbed by aid of technology

- Artificial Intelligence based platforms that can check the authenticity of the source of news (Facebook working on it)
- Deep and Machine learning to understand patterns in fake news and their sources
- Using technology and social media platforms to spread awareness about the menace
- Limiting the number of users that a ~~source~~ ^{news} with dubious source can be transmitted to (whatsapp using it)
- Clearly marking 'forwarded messages' to track the source of news
- Blocking websites that spread fake news and misinformation

Thus technology can be used to spread as well as curb fake news. To curb such news, awareness building and community involvement is paramount.

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

(150 words) 10

हाल ही में गठित रक्षा नियोजन समिति (डिफेंस प्लानिंग कमेटी) की प्रमुख विशेषताओं की व्याख्या कीजिए। यह विश्वसनीय रक्षा तैयारी में कैसे सहायता कर सकता है?

Defence planning Committee has recently been constituted as a multi-member body with wide and varied representation. It will be headed by the National Security Advisor (NSA) and will all include:-

- Secretaries of relevant ministries
- The 3 Chiefs of Staffs.

Other salient features

- It will have representation from both finance and defence ministry to better deliberate upon security aspect as well as financial implication of the planned purchases
- Armed forces involvement would help bring the end-user perspectives on ~~technology~~ technical aspects and platform/weapon capability
- The committee will take a long term approach to procurement and build a procurement pipeline
- Project will ultimately be approved by CCEA

The Committee can play a the role of a catalyst in defence preparedness

- By faster decision making
- By bringing multiple perspectives
- By expediting critical defence purchases as defence procurement cycle in India is long and marked by excessive bureaucratic & procedural hurdles (eg MMRCA aircraft deal was ~~approved~~ given go ahead in 2003)
- By taking an integrated approach to weapon systems from the perspective of national security
- By promoting private sector involvement in defence production that also dovetails with the aims of Make in India programme

Thus defence procurement committee can play an enabling role in expediting the purchase process of key weapon systems and platforms and will help improve India's defence preparedness.

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

संपत्ति और नकदी के रूप में विशाल परिसंपत्तियां एकत्रित करने वाले माओवादी नेताओं की हालिया रिपोर्टों ने आतंकवाद-रोधी प्रयासों के भाग के रूप में वित्त पोषण नेटवर्क की जाँच करने का महत्व रेखांकित किया है। चर्चा कीजिए।

Maoist ideology is ~~one of~~ the biggest threat to India's Internal Security, as former pm Dr. Manmohan Singh said. Recent incidents of maoist leaders amassing huge assets is a grave concern and it calls for better investigation in probing the funding network of maoists. Maoist Terrorism and unlawful activities go hand in hand, and Maoists use a variety of channels to generate funds for their subversive agenda, eg

- Extortions
- Levy on government contracts
- kidnappings
- Smuggling of Fake Indian Currency Notes
- Human Trafficking
- Narcotics and arms smuggling

Moreover, recent revelations that left wing extremists have tie-ups with (i) separatists based in North-East (ii) Maoists in Nepal further point to a pan-India and even international funding network.

Thus to give teeth to its counter-terror efforts, India must ~~track the~~ track the source of Maoist funds, particularly:-

- Channels of fund generation enumerated above
- Means of fund transfer (Hawala etc.)
- Sympathisers in civil society that may be acting as fronts and mobilizing finances for Maoists
- Tie up with foreign terror organisations and fund exchange with them.

Thus the sources of property for Maoist leaders should be thoroughly investigated and its interlinkages with other terror organisations and unlawful activities must be unearthed to bolster India's counter terror efforts

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

MSMEs से संबद्ध सेवा उद्यम न केवल समग्र GDP संवृद्धि में बहुत अधिक योगदान देती हैं, बल्कि उनका स्थानीय अर्थव्यवस्थाओं पर भी एक सशक्त और गुणक प्रभाव है। इस कथन का सविस्तार वर्णन करते हुए, MSMEs सेवा क्षेत्रक द्वारा सामना की जा रही समस्याओं पर प्रकाश डालिए। सरकार MSMEs के लिए किसी व्यवसाय को आरंभ करने और उसके विकास को कैसे आसान बना सकती है?

MSMEs are one of the most vibrant sector of Indian Economy. They contribute 45% ^{to} India's manufacturing output and 40% ^{to} India's export and provide employment to almost 11 crore workers.

Contribution to GDP Growth

- MSMEs form a large part of both manufacturing and services output, both of which have been growing at more than 7% in recent years
- India's exports form ~40% of its GDP and MSME contribution is substantial
- MSMEs contribute significantly to Value Addition and to Gross Value Added (GVA) in the economy.

Multiplier Effect on Local Economies

- MSMEs provide wage employment to both skilled and unskilled labour
- The wages support local economies, particularly rural economies
- Helps increase purchasing power and ~~the~~ aggregate demands in rural areas
- The demand ultimately helps in capital ~~investment~~ formation and further GDP growth
- MSMEs particularly help in making GDP growth more broad-based by promoting regional equality in value addition.

Problems Faced by the MSME Sector

- Poor Access to credit
- Poor marketing linkages
- Inadequate integration with global value chains
- Lack of proper infrastructural facilities (roads, power, water supply etc.) leading to high cost of doing business
- Regulatory hurdles in form of clearances and inspections
- Lack of skilled manpower

- low value addition in many MSME sectors
- low mechanization and outdated machinery
- lack of policy and administrative support
- Recently, many MSMEs have faced
 - challenges in GST adoption/migration due to low digital literacy
 - declining profitability post demonetization due to cash-based nature of business

Govt. can take the following steps to increase ease of doing business for MSMEs

- Better Credit Availability at cheaper rates (eg interest subvention scheme)
- Subsidy support for technology upgradation (through PM Employment Generation Programme)
- Skilling of labour force through (PMKVY)
- Better marketing linkages (eg through Mahila e-Haat for women SHG-based MSMEs)
- Simplifying GST regime further
- Provision of 24x7 power and better road connectivity
- Export incentives
- Developing MSME clusters and hand-holding through expert services (SFURTI scheme)
- easing bottlenecks in exports

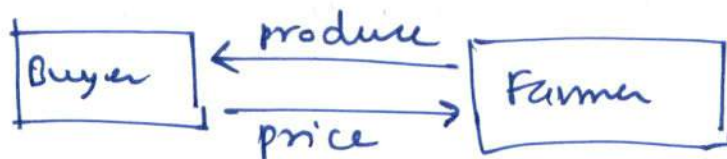
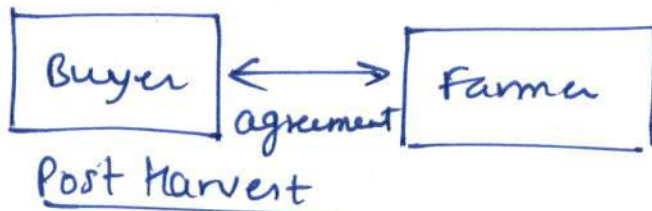
Thus, a variety of concerted steps are needed to further improve the productivity and value addition in MSME sector and to make them engines of growth.

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

संविदा कृषि (कॉन्ट्रैक्ट फार्मिंग) के कई लाभ हैं, हालांकि यह बाजार की विफलताओं से ग्रस्त है। सविस्तार वर्णन कीजिए। सरकार, संविदा विफलताओं का कारण बनने वाली समस्याओं को ठीक करने हेतु क्या कर सकती है? साथ ही, चर्चा कीजिए कि क्या मॉडल संविदा कृषि अधिनियम, 2018 सही दिशा में उठाया गया एक कदम है।

Contract Farming is a farming method that is based upon:

- a pre-harvest agreement between a farmer and buyer
- wherein the buyer commits to buy a specified amount of produce at specified price at a future date pre-harvest



Contract farming has many advantages

→ For farmers

- Technology, extension and input support in the form of good quality seeds, better farming practices

- Latest R&D aimed at improving farm productivity & produce quality
- Assurance of post-harvest revenues irrespective of the market price
- Better income realization
- For Buyer
 - Good Quality produce
 - Assured availability
 - Reasonable, fixed prices
 - Uniformity in raw materials
 - Predictable supply source
 - Corporate social responsibility.

However, market failures may occur in contract farming when

- One of the parties reneges on the commitment
- Price crashes post harvest, and buyer buys from market
- Buyer does not provide pre-agreed price
- Information Asymmetries exist between the parties
- Farmer is penalized by fines, penalties & land possession for failure in delivering upon the commitment.

Steps Needed to Correct Contract Failures

- Black and white contracts that must be honoured
- Dispute redressal mechanism

- Punitive measures if buyers dupes the farmers (fines + jail term) + compensation)
- Building awareness among farmers
- Govt. stepping in as a buyer if the buyer defaults.

In this context, various provisions of Model Contract Farming Act are a step in the right direction :-

- (i) Blanket ban of possession of land to protect farmers
- (ii) Encourages dispute resolution and provides for ~~for~~ punitive measures
- (iii) Contract farming produce to be out of state APMCs
- (iv) All such agreements must be on the back of a pre-written and agreed e Contract that specifies the quantity & grade of the produce

The model act can act as a catalyst in the promotion of contract farming. It should further be strengthened by building awareness among farmers about its provisions and institutionalizing robust grievance redressal mechanisms.

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

विघटनकारी प्रौद्योगिकियों (डिस्रप्टिव टेक्नोलॉजी) द्वारा लाए जा रहे संरचनात्मक परिवर्तनों के प्रकाश में श्रम बल की नियोजनीयता में सुधार लाने के साथ-साथ रोजगार अवसरों की संख्या बढ़ाने के लिए आवश्यक उपायों का सुझाव दीजिए।

As Economic survey 2017-18 points out, India faces a dichotomy where:-

- There is an acute shortage of market-relevant skills among a large portion of India's conventionally educated workforce
- There is an unfulfilled demand for skilled workers in many sectors, particularly knowledge-intensive sectors.

Moreover disruptive technologies like Artificial Intelligence, Autonomous Manufacturing, Robotics, Big Data and Machine learning further increase the challenge for India:-

- Shrinking labour demand in traditional Industries (eg Manufacturing)
- Need to re-skill and up-skill existing labour force (eg IT sector)
- Need to provide social security and basic income
- Hindrance in success of Make in India

Thus, various measures that are needed are as follows

- 1) To improve the employability of workforce
 - To reorient education, ~~primary~~ importantly higher education so that it imparts market-appropriate skills
 - Improving training infrastructure like ITIS (through SANKALP + STREE schemes)
 - Skilling at scale and with speed through PM Kaushal Vikas Yojana
 - Promoting Apprenticeship (National Apprenticeship Promotion scheme)
 - On the Job Skilling (eg IT sector)
 - Promoting Vocational education & integrating it with formal education by providing lateral/horizontal entry and exit
 - Reforming skill administration in country, particularly NSRF & Sectoral Skill Councils as suggested by Sharda Prasad Committee
 - Improving certification regime and mainstreaming Recognition of Prior Learning (RPL) & Bridge Courses

2) To Increase Number of Employment opportunities

- Promoting labour-intensive manufacturing (e.g. leather & footwear, Gems & Jewellery and Textile sectors)
- Improving ease of doing business further by easing regulatory burden. It will attract FDI and create more jobs
- Solving the NPA crisis to reignite investment cycle in the economy
- Promoting self-employment through incentives under Start-up and Stand-up India
- Better safety at workplace and in public places so that women can avail of the employment opportunities that they let go due to safety concerns
- Implementing shops and establishments acts and reforming labour laws can further boost employment opportunities
- Improving infrastructure to ~~in~~ decrease cost of doing business and promote exports

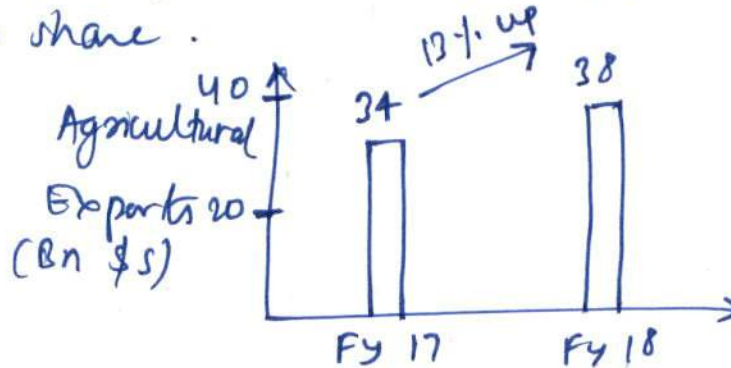
Thus structural changes brought about by disruptive technologies can be handled through a variety of skilling & employment generation programmes. Moreover better social

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

तदर्थता और उपभोक्ता समर्थक पक्षपात से प्रभावित, कृषि में भारत की व्यापार नीति ने निर्यात सामर्थ्य की प्राप्ति को बाधित किया है तथा किसानों को लाभ उठाने से रोका है। इस कथन का परीक्षण कीजिए और सरकारी पहलों सहित कृषि निर्यात में सुधार लाने के तरीकों पर चर्चा कीजिए।

~~Ques~~ Agriculture contributes significantly to India's external trade and it has the potential to further increase its share.



However, India's trade policy in agriculture has prevented farmers from reaping the full potential of agricultural exports.

1) Ad-Hocism

- Arbitrary restrictions on export which hinders the farmers from realizing ~~the~~ a fair income
 - eg on sugar and Pulses
- setting up Minimum Export Prices that are often unreasonable and concompetitive

- High export duties on certain items to discourage exports
- Stocking limits under essential commodities act that hurt bulk exporters

2) Pro-consumer Bias

- Low import duties (eg on Oil Palm) leads to flooding of cheap imports into the country and hurts domestic farmers
- Unreasonable import policy (eg pulse import) even when there was domestic oversupply to aid consumer
- Inflation-control as the key policy pivot of RBI
- Low MSPs further show pro-consumer bias
- No import limits/restriction in glut periods are imposed just like export restrictions during low-supply periods

Ways to improve agricultural exports

- Lowering export duties
- Further strengthening and broad-basing Merchandise Export from India (MEIS) scheme
- No export restrictions, and a firm commitment towards the same
- Support to improve quality of exports, eg

- Testing Facilities
- Irradiation/Quarantine facilities
- Market support and linkages, particularly with the aim of diversifying India's export basket
- Investing in Food Processing industries (with both public and private capital)
 - Mega Food Parks
 - Incentive for food processing industries
 - Cold Chain Network
 - MEX 7 handle free shipment at ports

This can improve value addition in the agri-industry
- Negotiating favorable Free Trade Agreements (eg at RCEP)
- Promoting Negotiable Warehouse Receipts, deepening futures and options markets and deepening the agri-credit penetration.

These steps, along with awareness generation about various govt. Schemes can help improve India's Agri-export. Moreover, a dedicated Agri-export Policy & Action Plan also is the need of the hour.

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

क्या मुद्रा विनिमय दर देशों के सापेक्ष आर्थिक प्रदर्शन की एक उपयुक्त माप है? मैक्रो इकनॉमिक फंडामेंटल्स (समष्टि-आर्थिक आधारों) में सुधार के बावजूद, भारत में व्यापार घाटा निरंतर बढ़ा है। इस स्थिति के लिए उत्तरदायी कारकों को प्रस्तुत कीजिए।

The currency exchange rate is often used as a barometer of relative economic and trade performance of countries.

→ A strong and appreciating currency implies strong domestic economy, high inward FDI/FII flows, robust current account situation and an affirmation in the relative value of currency as a 'safe haven' asset of USA, Swiss Franc

→ A weak and depreciating currency implies a weak domestic economy, current account deficits, outward flow of FDI/FII money and low faith in the stability of currency

of Chinese Yuan and Indian Rupee (as has been stated by many analysts recently)

However, exchange rate is not a suitable measure of relative economic performance of countries, because

- It is subject to global factors of conflict in middle east
 - US-Iran tussle
 - US-North Korea tussle
- It is subject to policies of other central Banks
 - e.g. US Federal Reserve is on a rate like cycle, thus more funds are entering USA to chase higher returns
- It is dependent upon demand & supply for currency & not the aggregate demand & supply in economy, that is the true barometer of economic growth

This is all the more evident in the case of India, where despite improving ~~the~~ macro-economic fundamentals, currency continues to depreciate.

Factors Responsible for the situation

- Rising oil price (\$80 per barrel now) leading to widening current account

Debut (2.47. in Q, FY18)

- ~~Q~~ Interest Rate hikes by the US Federal Reserve
- US-IRAN Nuclear deal failure builds uncertainty in global crude oil supply situation, ~~Q~~ Crude oil is an engine of economic growth
- Trade war between USA and China with retaliatory tariffs
- Some of the tariffs by USA are also directed at India (eg Aluminium)
- ~~Q~~ Widening trade deficit due to low competitiveness of Indian products in global markets.

However, as economic survey points out, Indian Currency is overvalued in Real Effective Exchange Rate (REER) terms, where it appreciated by ~20% between 2014-2017, before falling by about 10%. Thus India should focus more on increasing its ease of doing business and reducing its fossil fuel dependence to promote a more stable currency.

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

भारत में चीनी उद्योग द्वारा सामना की जा रही समस्याओं को दूर करने के लिए राहत पैकेज से आगे और कुछ करने की आवश्यकता है। चर्चा कीजिए।

India is the largest producer and consumer of sugar in India and sugarcane is the most prominent cash crop in the country. Despite the importance of the sugar industry, it continues to face multiple problems.

Problems faced by sugar industry

→ Low economics of scale

- Sugarcane loses sugar content fast after harvesting
- But poor road network implies that sugar mills must be located close to the farming area
- Leading to a large number of small mills

→ Old Technology

- Poor technology upgradation
- High energy usage

→ Poor marketing of by products

- Bagasse based co-generation not harnessed to its full potential
- Ethanol production not sufficient

to meet domestic needs

→ Large Arrears

→ Revenues of the mills are not enough to pay the farmers at State Administand Pnus (SAP)

→ Poor Pricing structure for Cane

→ States announce SAP over and above the MSP for populism

→ SAP often unscientific and unreasonable

→ Also promotes ~~ca~~ cane-based monoculture that is water-intensive

→ Ad-hocism in trade policy

→ Frequent instructions on sugar exports

→ High Debt Burden

→ Due to ~~late~~ poor realization from ~~low~~ output and late reimbursement by the government offtake under POS

(*) ~~late~~ The government announced relief package recently for sugar industry, but it will take much more than that to revive the industry:-

→ Setting fair MSPs band upon true cost and reasonable profits

→ abolishing SAP and 'bonuses'

- ~~the~~ Incentivizing farmers to move to other cash crops to improve water use efficiency in agriculture
- Promoting good, low-sugar diets among citizens
- Technological upgradation of plants
- Better rural road infrastructure so that larger plants can be established
- Higher procurement of ethanol from refineries to take ethanol blending in diesels from 3% to 20% (targeted)
- Promoting bagasse-based co-generation
- ~~the~~ Removing export restrictions
- Proceeding cautiously in using essential commodities act ~~the~~ ~~is~~ when sugar prices spike

Thus it will take a variety of measures to revive the sugar industry in India. However policy makers should also think of a long term approach that promotes judicious intake of sugar.

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

लगभग 10 वर्ष पुराने और उत्कृष्ट लक्ष्यों के साथ सूत्रबद्ध, NAPCC ने जलवायु परिवर्तन के प्रभावों का सामना करने संबंधी सर्वोत्तम अनुक्रिया के रूप में कार्य नहीं किया है। आलोचनात्मक चर्चा कीजिए।

National Action Plan on climate change was formulated as an enabling plan to take India into a low-carbon growth path. ~~however~~ It consisted of 8 sub missions:-

- National Solar Mission
- National Water Mission
- National Mission on Sustainable Habitats
- Green India Mission
- National Plan for Strategic Knowledge on Climate Change
- National Mission on Sustainable Agriculture
- National Mission on Energy Enhanced Efficiency.

However, the Action Plan has not served the best answer to cope with climate change impacts :-

- i) NAPCC was to be supported by a National Adaptation Fund for climate change (NAFCC); however adaptation plans

financed by NAFCC have not ~~be~~ made
any visible impact

- The National Clean Energy Fund established to fund clean energy projects used only 10 20% (10,000 crore of 50,000 crore) of funds and then it was subsumed within GST compensation fund
 - The progress on making urban habitations green and sustainable has been inadequate
 - Agriculture still remains unsustainable characterized by high fertilizer use and irrational power and water use
 - Himalayan Ecosystem is degrading and stress was seen during the 2013 Uttarakhand tragedy
 - Species and Habitat loss are accelerating
 - Forest quality & degrading
- At the same time, there have been some notable successes
- National solar mission has been expanded and it has already achieved its original goal of 20 MW 204W
 - National Mission on Energy balanced

Efficiency (NMEFF) has been successful particularly the PAT scheme and UJALA scheme

However, by and large, there has been more failures than successes, particularly in promoting sustainable ecosystems and reducing fossil fuel use.

Thus India needs to redouble its efforts to achieve the lofty goals of NAPCC, and also to meet its PNDG and SDG targets.

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

परमाणु हथियारों का प्रसार और उनके उपयोग का खतरा वैश्विक सुरक्षा की प्रमुख चिंताएं हैं, इसके बिना वर्तमान अंतर्राष्ट्रीय व्यवस्था अप्रभावी प्रतीत होती है। टिप्पणी कीजिए। साथ ही, इस संदर्भ में भारत की नीति की प्रमुख विशेषताओं को चिन्हित कीजिए तथा चर्चा कीजिए कि क्या भारत को वर्तमान प्रारूप वाले NPT में सम्मिलित होना चाहिए।

Recent diplomatic standoff between USA and North Korea and risk of a nuclear war emphasize the ~~core~~ threat that nuclear weapons pose to global security.

Proliferation of Nuclear Weapons

- Pakistan and North Korea have allegedly acquired their nuclear weapons through proliferation networks
- A.Q. Khan Network of Pakistan is alleged to be a key proliferator
- The threat of these weapons of mass destruction (WMDs) falling into the hands of terror organizations like ISIS and Al Qaeda remains due to possession of nuclear weapons by unstable countries like Pakistan

Threat of their use

- The leaders of North Korea and USA both threatened to use their ~~the~~ nuclear weapons on each other recently
 - Credible Deterrence and Mutually Assured Destruction are pivoted on the threat of use of nuclear weapons if the need be
 - USA, ~~was~~ in 1950s, in its theory of Brinkmanship also implied the threat of use of nuclear weapons as a key element of its diplomacy
 - Pakistan's leadership often points to this threat
- Existing international arrangements consist of Nuclear Non-Proliferation Treaty (NPT) and CTBT as well as IAEA inspection of civil nuclear facilities. Further ~~the~~ Nuclear Suppliers' group aims to ~~not~~ reduce the flow to nuclear fuel to unreliable nations.
- These arrangements have been ineffective in →

- Reducing proliferation (Pakistan & N Korea)
- Reducing tests of weapons (N Korea)
- Reducing threat of use
- In promoting nuclear disarmament

Salient features of India's Policy

- Credible deterrence based upon nuclear triad
 - Missiles (Agni)
 - Submarines (Sagarika)
 - Planes (Su-30, ~~Thunder~~ Mirage)
- No first use policy
- Complete commitment to non-proliferation
- Advocacy of nuclear disarmament

India's joining NPT in current form

- Current form does recognize any nation other than the PS of UNSC as nuclear weapon states
- So such nations must give up nuclear weapons
- This is detrimental to India's security
- So India should not join in current form.

India should join if it is recognized as a nuclear weapon state and at the same time it should help build international consensus on complete disarmament

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

समुद्री सुरक्षा प्रक्षेत्र (डोमेन) गैर-परंपरागत खतरों का सामना करने हेतु सामूहिक बहुपक्षीय और क्षेत्रीय सहयोग की मांग करता है। पश्चिमी हिंद महासागर में खतरों और जिवूती आचरण संहिता में हालिया संशोधन के संदर्भ में चर्चा कीजिए।

The maritime domain is facing many non-conventional threats. The involvement of ~~the~~ terrorist group and other international groups further exacerbate the problems.

The non-traditional threats are

- Piracy (eg in Malacca Strait and around the Horn of Africa)
- Smuggling → of currency notes
 - ↳ of contraband goods
 - ↳ of Narcotics and psychotropic substances
 - ↳ of arms (Sir Creek Area)
- Illegal, Unreported and Unregulated fishing by CTUV by armed gangs
- International Human Trafficking networks
- Civil War in Indian Ocean littoral States (eg Yemen) that can spill over to

maritime domain.

These threats can be better handled through regional and multilateral involvement as emphasized in the Djibouti Code of Conduct.

- The open seas are free for navigation by all and this right is protected by UNCLOS
- Any threat to vital sea lanes of communications (SLOCs) can disrupt global trade
- The perpetrator are often international groups ~~and~~ with terror links
- Such threats increase the risk and cost of insurance for all nations
- Checking smuggling of narcotics, currency notes and contrabands can reduce funding sources for illegal and terrorist organizations and help counter the menace of terrorism

India can play a pivotal role in dealing with non-conventional

threats and as a net security provider in the Indian Ocean region.

Not only its own naval assets and nationals are under threat, but West Asian nations are increasingly looking towards India to step up its role in the western Indian Ocean. India should rise up to the occasion and take a leading role in regional & multilateral fora towards countering these threats.

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**

भारत का अंतरिक्ष कार्यक्रम, शांतिपूर्ण उद्देश्यों हेतु बाह्य अंतरिक्ष का उपयोग करने के दृष्टिकोण के साथ आरंभ किया गया था, हालांकि बदलते समय के साथ इसमें भारत की सुरक्षा क्षमताओं को मजबूत बनाने में महत्वपूर्ण भूमिका निभाने की क्षमता है। यथोचित उदाहरणों के साथ चर्चा कीजिए।

The foundation of India's Space Programme was laid in 1950s, with Dr. Vikram Sarabhai playing a leading role in the infant stages of the programme. India's vision was to utilize space for peaceful purposes and India has delivered on the promise

- Various INSAT series satellites for satellite communication
- GSAT series for remote sensing
- Cartosat and Risat for surface mapping
- NAVIC for positioning data
- Oceansat for cyclone prediction
- various launch vehicles that are now helping launch satellites for other nations (PSLV, GSLV, GSLV MK III)
- Chandrayaan & Mangalyaan

However the current times are characterized by increasing security threats to the country. Moreover, weaponization of space (China has already developed an Anti-Satellite (ASAT) weapon). As such, India's space programme has the potential to play a significant role in strengthening the security capabilities of India:-

- (i) Use of satellites like Cartosat to keep an eye on the terror camps across India's borders in Pakistan, Myanmar and Bangladesh
- (ii) Use of earth observation tools to observe military buildup by hostile countries (eg China)
- (iii) Monitor troop deployments across borders
- (iv) Monitor hotbeds to terrorism like Pakistan-Afghanistan Border
- (v) Building secure and encrypted communication ability for military use and for co-ordination with defense partners (eg USA)

- (vi) Provide live satellite feeds during terror-attack like situations (USA allegedly used satellites to keep watch on Osama Bin Laden's Abbottabad Compound)
- (vii) Develop own anti-satellite capabilities in clandestine manner with ~~the~~ ^a a no-first use policy.

Thus India's space programme, although for peaceful purposes, can be used to enhance security capabilities of the nation. Policy support and funding should be provided to ISRO for the same.