

Test Code: 21051

FIAS – 2019 – GS 12B

ForumIAS

ACADEMYs

GENERAL STUDIES

Name Of Candidate	NAVNEET MANN		
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Mobile No.		Date:	27/1/2019

Time Allowed: Three Hours

Maximum Marks: 250

INDEX TABLE			INSTRUCTION
Q. No.	Max. Marks	Marks Obtained	<p>1. Do furnish the appropriate details in the answer sheet (viz. Name, Email, Roll No, Mobile).</p> <p>2. There are TWENTY questions printed in ENGLISH.</p> <p>3. All questions are compulsory.</p> <p>4. The number of marks carried by a question/part is indicated against it.</p> <p>5. Answers must be written in the medium authorized in the admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided.</p> <p>6. Word limit in questions, if specified, should be adhered to.</p> <p>7. Any page or portion of the page left blank in the Question-Cum Answer Booklet must be clearly Struck off.</p>
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Total Marks:			
Remarks:			Start Time 11:35 AM
			End Time 2:35 PM
			Mode Of Examination : Online <input type="checkbox"/> Offline <input checked="" type="checkbox"/>
			ECN CODE:
			Evaluation Date:

ForumIAS Offline Guidance Centre

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

ADDITIONAL COMMENTS



Q.1) What is Suspended Particulate Matter? What are its effects on health and environment?
(10 Marks, 150 Words)

Suspended Particulate Matter are particles of pollutants like black carbon and brown carbon which remain suspended in air. While ^{many} pollutants exist in liquid, gaseous form, these particulate matter are solid-based.

Most pollutants are the 2 varieties of PM_{2.5} and PM₁₀.

Effect on Health

- entry of PM_{2.5}/PM₁₀ in our respiratory system → can cause problems like bronchitis, asthma, etc.
- continued exposure can lead to fatigue, tiredness among elderly, children

- can increase chances of skin allergies and various dermatological problems (like eczema, etc.)

Effect on Environment

- absorbs heat → causing global warming
- settles on clouds → disturbs rainfall patterns
- settles on ice/glaciers → reduces albedo → leads to greater ice melting
- settles on plants → reduces their photosynthetic and thus, growth potential

Way forward.

- Reduce emissions by shifting to RSV norms, cleaner fuels like hydrogen gas fuel
- industries should use particulate matter absorbers to reduce emissions of PM.

Feedback (For OFFICE use only)

Structure	
Question Interpretation	
Content	
Total	



Q.2) In the wake of the rising cyber-security related threats in India, highlight the measures taken so far by the government of India. (10 Marks, 150 Words)

Cybersecurity is aimed at protecting the cyber space - computers, networks, data from unauthorised, unintended use.

Threats to India's cyber security

- Malware → worms, viruses, trojans
- Ransomware (like WannaCry, Petya)
- Denial of Service Attacks, Network Packet Sniffers, etc.
- Social engineering through Phishing
- cyber warfare
- cyber terrorism

Measures taken by Government

National Cybersecurity Policy 2013

- aims at creating 50,000 strong workforce of cyber security professionals

- 24x7 operational Computer Emergency Response Team (CERT-In)
- National Cyber Coordination Centre to coordinate between intelligence agencies to prevent cyber attacks
- Cyber security drills
- National Cyber Security Management Plans
- Cyber Swachhata Kendra to clear botnets from malware
- Cyber Suraksha Bharat Initiative (1st PPP initiative to promote cyber security)

WAY FORWARD

Amend IT Law and formulate new Data Protection Law for protection of cyber space.

Feedback (For OFFICE use only)

Structure	
Question Interpretation	
Content	
Total	



Q.3) What is Free Space Optical Communication (FSOC) technology? Discuss its merits and challenges. (10 Marks, 150 Words)

Free Space Optical Communication (FSOC) technology works on the principle on the use of light to transfer data.

FSOC

- light is used in free medium to transfer data.
- based on ~~the~~ line of sight principle

Optical Fibre cable

- optical fibre is used for data transfer
- not based on line of sight

Recently, Alphabet Company is going to develop FSOC-enabled data services in state of Andhra Pradesh.

MERITS →

- use of light for transmission provides greater speed
- more flexible in operation, cost effective solution
- elaborate infrastructure is not required
- error-free transmission
- provides greater security in data transfer

DISMERITS →

- line of sight communication may suffer from various disturbances in its path
- weather-related concerns

WAY FORWARD | Its inception in India now should serve as a ground to further promote FOC technology in the country.

Feedback (For OFFICE use only)

Structure	
Question Interpretation	
Content	
Total	



Q.4) India's accession to WIPO Copyright Treaty, 1996 and WIPO Performance and Phonograms Treaty, 1996 is indeed a step towards achieving the objectives of National Intellectual Property Rights (IPR) Policy. Comment. (10 Marks, 150 Words)

WIPO Copyright Treaty and WIPO Performance and Phonograms Treaty 1996

are aimed at extending the benefits of IPR protection to owners of digital data, programs, etc.

In this respect, the National IPR Policy's objectives are achieved as:

- Commercialisation of IPRe's will encourage owners of digital media/content to commercialise their intellectual property
- generation of IPRe's → now moving beyond AIs and industrial products
- provides legal framework for protection of rights of owners of contents like → movies, etc.

° will encourage PPP collaboration in protection of intellectual property
 (eg → National Film Archives of India can preserve digital copies of movies, etc. on behalf of persons who themselves can't do so)

Thus, the accession of India to the above two treaties paves the way for further IPR promotion in the country.

Feedback (For OFFICE use only)

Structure	
Question Interpretation	
Content	
Total	



Q.5) Technical solutions are necessary to augment and complement the traditional methods of border management. Critically discuss. (10 Marks, 150 Words)

Border management is a complex task for India, given the long borders of 15,000 kms along with rough, inaccessible terrain.

Traditional methods of border management

- Border check posts
- increasing manpower for surveillance
- Integrated check posts

Technical solutions

- smart fencing under Comprehensive Integrated Border Management System

- involves use of :

- ↳ sophisticated high end surveillance
- ↳ efficient communication network
- ↳ One command, control centre.

- use of AIS mapping, satellite technology (eg → Microsat-R), UAVs

WAY FORWARD

- Technical solutions are not enough.
- This is because border management is also about uplifting lives of those living along the borders.
- There is a need to augment the Border Area Development Programme.
- further, a boundary management commission under the Union Home Minister should be formed to deal with border management in a holistic manner.

Feedback (For OFFICE use only)

Structure	
Question Interpretation	
Content	
Total	



Q.6) Recently, the Health ministry has prepared a plan to ban manufacture, sale and distribution of some fixed-dose combination drugs based on recommendations of the Drug Technical Advisory Board (DTAB). Discuss the implications of the ban on public health.
(10 Marks, 150 Words)

Fixed -Dose Combination (FDC) drugs
are drugs which contain two or more doses of different medicines. This ensures the benefit of two-in-one / many-in-one medicine.

The Drug Technical Advisory Board (~~Unhitherto~~ (instituted under the Drugs and Cosmetics Act) recently banned the sale and production of certain FDC drugs on the grounds that their production was marred by rampant flouting of various health safety rules.

NEGATIVE IMPLICATIONS

- sudden shortage of critical drugs (like painkillers, etc.)
- push sale of these drugs in the black market → further increases safety concerns

POSITIVE IMPLICATIONS

- provides for safety of consumers
- serves as deterrent to FDG manufacturers to adhere to all necessary regulations.

WAY FORWARD

Due to their inherent effectiveness and cheapness, FDG drugs are the go-to drugs of consumers today. However, greater ~~reg~~ regulation is required to ensure the safety and efficacy of these drugs.

Feedback (For OFFICE use only)

Structure	
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Content	
Total	



Q.7) Unmanned Aerial Vehicles are growingly used in various aspects of military and civilian domain. In this light, examine the Drone policy and its impact on the regulatory framework. (10 Marks, 150 Words)

UAVs are aerial devices which can be operated without any human control. or at best through a remote control.

Applications

- border management → surveillance, check infiltration
- e-commerce → logistics, delivery of services
- policing → maintaining watch over a given area.

Drone Policy

- it provides for purchase of UAVs (domestic, internationally) ~~only~~ only when the party has a valid government-authenticated ID number.

- necessary licences required for private parties to fly UAVs
- restrict airspace for use of UAVs for ~~general~~ general public
- declares the Directorate General of Civil Aviation as nodal agency in UAVs.

Feedback (For OFFICE use only)

Structure	
Question Interpretation	
Content	
Total	



Q.8) What do you understand by non-state actors? How do they pose a challenge to the internal security of India? (10 Marks, 150 Words)

Non state actors are groups which are outside the fold of the government. That is, they do not form part of the governmental body.

These include NLDs, voluntary organisations, MNCs, terrorist groups, etc. All of them pose some or the other internal security challenge.

Terrorist organisations →

- threaten the legitimacy of government
- promote terror, threaten safety and security of public
- promote insurgency like in North East, Kashmir, Naxalite-affected Areas

While terror groups form the "uncivil society", MNCs, NGOs form the "civil society" and offer many benefits. However, some may pose a challenge to internal security.

MNCs → threaten economic security

◦ siphon off money ~~for~~ meant for development purposes

◦ promote instability, financial crisis in times of financial outflows.

NGOs → sometimes, indirectly end up

aiding insurgency - promoting groups → by giving aid, resources, etc.

Feedback (For OFFICE use only)

Structure	
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Q.9) With the capabilities it imparts, the Indian space agency will not be found lacking in helping India secure its national interests, now and in future. In this light, highlight the key roles played by Indian Space Research Organisation (ISRO)'s in securing India's national security. (10 Marks, 150 Words)

ISRO has emerged as a pioneer in space technology. The technology it provides can be used in multiple sectors - agriculture, disaster management even securing India's national security.

- better protection of borders, checks infiltration
(eg → Mirv'sat - R satellite)

- secure communication network through satellite

②

- navigation through rocky, difficult terrain

(eg → use of NAVIC satellite)

space deterrence

Today nations like china, USA are going weaponising the space. India in this respect that its ~~possession~~ possession in the space remain protected.

WAY FORWARD

• Passing the Indian Space Activities Bill. It will ensure that licences are required to use space. It encourages greater collaboration with private sector in developing space technology.

Feedback(For OFFICE use only)

Structure	
Question Interpretation	
Content	
Total	