1. Can Delhi dispose off it garbage hills?

2. ‘Reuse of contaminated material biggest challenge’

3. Cannabis high for Manipur’s start-up dream

4. GI tag validity of Kamalapur red banana lapses as dept. snoozes

5. Tobacco Board official opts out of U.S. event

6. The nationalist hindrance to climate actions (Editorial)

7. Practice cum Revision - MCQs

*Page Number*: C – Chennai; B – Bengaluru; D – Delhi; T – Thiruvananthapuram
Can Delhi dispose of its garbage hills?

The government declared its intention to become self-sufficient in Delhi, Bhalswa and Chhatarpur, with a proposed capacity to dispose of the waste involved in the process. Although there is a question of the proposed capacity, the reuse of contaminated material biggest challenge. Such sites to be investigated and analysed by local authorities - for Biomining & Bio-remediation (Rule 15 ZJ - Solid Waste Management (SWM) Rules 2016) shall be scientifically capped (Rule 15 ZK).

Part A—Preliminary Examination

Paper I - (200 marks)
- Current events of national and international importance.
- General issues on Environmental ecology, Bio-diversity and Climate Change - that do not require subject specialization.

Part B—Main Examination

- Conservation, environmental pollution and degradation, environmental impact assessment.

Rehabilitation of old solid waste dumpsites in Delhi
- Ghazipur
- Bhaluwa
- Okhla

Municipal Solid wastes
- generated mainly from residential and commercial complexes
- does not include
  - industrial waste
  - hazardous waste & chemicals
  - Bio-medical wastes (untreated)
  - e-waste
  - lead acid batteries
  - Radio-active waste

Old dumpsites - huge water contamination

Such sites to be investigated and analysed by local authorities - for Biomining & Bio-remediation (Rule 15 ZJ - Solid Waste Management (SWM) Rules 2016)
- shall be scientifically capped (Rule 15 ZK).

Clause J, First Schedule of SWM Rules, 2016
- Closure and rehabilitation of old dumpsites

Rule 22 - SWM Rules, 2016 - within 5 years from 8th April 2016 - local authorities to carry out bio-remediation/capping of old and abandoned dumpsites

National Green Tribunal - directed to carry out Bio-mining and/or Bio-remediation - to address environmental harmful impacts from these sites.
<table>
<thead>
<tr>
<th>Biomining</th>
<th>Bio-remediation</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Process - Using Microorganisms - in land reclamation process - to aid in extraction &amp; Segregation of materials from accumulated waste - includes segregating the materials - rotating screen (krommels)</td>
<td>* Process using microorganisms/plants/microbial/plant enzymes to detoxify pollutants in dumpsite environment</td>
</tr>
<tr>
<td>* After segregation</td>
<td>Capping</td>
</tr>
<tr>
<td>➤ Construction &amp; demolition material → Cement Industry</td>
<td>* Covering / capping the dumpsite after removal/reduction of wastes</td>
</tr>
<tr>
<td>➤ Plastic, wood, pulp, → Refused - Derived Fuel (RDF)</td>
<td>➤ forms a barrier between contaminated underground and the surface</td>
</tr>
<tr>
<td>❄️ Organic waste (used in waste to energy plants)</td>
<td>➤ protects from harmful effects of contaminated group</td>
</tr>
<tr>
<td>➤ Secondary soil - off-site applications</td>
<td></td>
</tr>
<tr>
<td>➤ NGT - to fill abandoned mines - afforestation - trees to absorb toxic pollutants</td>
<td></td>
</tr>
</tbody>
</table>

| 1st known example of scientific capping of garbage site in India         | Indore Example - Reported success of Biomining and Bio-remediation by Indore Municipal Corporation |
|   ➤ Gorai Dumping Ground, Mumbai                                          | * Based on which, the NGT directed Municipal corporations of Delhi to begin rehabilitation of old dumpsites by Oct 1, 2019 |
|   ➤ Also an example of scientific landfill closure and Methane Capture    |                                                                               |
Practice Question – Prelims

Q. Consider the following statements, with reference to Solid Waste Management Rule 2016.

1. Every waste generator shall segregate and store the waste generated by them in three separate streams.

2. The Ministry of Environment, Forest and Climate Change shall be responsible for monitoring the implementation of these rules in the country.

Which of the above statements is/are correct?

a) 1 only  
b) 2 only 
c) Both 1 and 2  
d) Neither 1 nor 2
### Cannabis

- Cannabis Sativa - plant (Hemp)
- Psychoactive constituent - Δ-9 tetrahydrocannabinol (THC)
- Structurally similar compounds to THC - Cannabinoids
- Also called Marijuana
- Hashish - Unpollinated female plants
- Most widely cultivated, trafficked and abused illicit drug
- Acute health effects
  - Impairs Cognitive development
  - Impairs psychomotor performance
- Chronic health effects
  - Selective impairment of cognitive functioning
  - Prolonged use → Affects daily functions
  - Airway injury; lung inflammation
  - Chronic bronchitis
  - Pregnant women → impairment of foetal development
- Therapeutic use
  - Used for nausea & vomiting in the advanced stages of illnesses such as cancer and AIDS

### Legal Status of Cannabis in India

- Classified as ‘Narcotic Drug’ under ‘Narcotic Drugs and Psychotropic Substances Act, 1985’ (NDPS Act, 1985)
- Cultivation of Cannabis plant is prohibited in India except for medical or scientific purposes
- Components of Cannabis that are banned
  - Charas - Separated resin from the plant (hashish oil)
  - Ganja - flowering & fruiting tops of the plant (excluding the seeds & leaves)
  - Any mixture/drink made from the above

#### Policies and Conventions

- Bhang - Preparation made from Cannabis leaves
  - Production & Sale permitted by many State govts
- Narcotics Control Bureau - Central Authority
  - For the purpose of exercising the powers and functions of Central Government under NDPS Act, 1958
- National Policy on Narcotic drugs and Psychotropic substances
  - Based on Article 47 (DPSP)
  - “State shall endeavour to bring about prohibition of the consumption except for medicinal purposes of intoxicating drinks and of drugs which are injurious to health”
Practice Question – Prelims

Q. India has adopted three main international conventions on drug control. Which of the following are the three conventions to which India is a signatory?

1. Single Convention on Narcotic Drugs, 1961
2. Convention on Psychotropic Substances, 1971

Choose the correct answer from the options given below.

a) 1 only
b) 1 and 3 only
c) 3 only
d) 1, 2 and 3

Practice Question – Prelims

Q. Narcotics Control Bureau comes under which of the following ministry?

a) Ministry of Commerce and Industry
b) Ministry of Social Justice and Empowerment
c) Ministry of Home Affairs
d) Ministry of Defence
Part A—Preliminary Examination

Paper I - (200 marks)

- Current events of national and international importance.
- Indian Polity and Governance—Constitution, Political System, Panchayati Raj, Public Policy, Rights Issues, etc.
- Economic and Social Development—Sustainable Development, Poverty, Inclusion, Demographics, Social Sector Initiatives, etc.

Part B—Main Examination

PAPERS-III

General Studies- II: Governance, Constitution, Polity, Social Justice and International relations.

- Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Geographical Indication Tag (GI Tag)

The Geographical Indications of Goods (Registration and Protection) Act, 1999

- GI: An indication that identifies the goods as originating or manufactured in the territory of a country, or a region or locality in that territory

- Quality
- Reputations
- Other characteristics

Attributable to its Geographical Origin

<table>
<thead>
<tr>
<th>Goods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural - Kodai kanal Malai Poondu</td>
</tr>
<tr>
<td>Natural - Chunar Balua Pathar</td>
</tr>
<tr>
<td>Manufactured - Dindigul Locks</td>
</tr>
<tr>
<td>Handicraft - Kandangi Saree</td>
</tr>
<tr>
<td>Industry</td>
</tr>
<tr>
<td>Food Stuff - Palani Panchamirtham</td>
</tr>
</tbody>
</table>

* Goods

* Registration → Valid for 10 years → Renewal required

* Registered by Registrar of Geographical Indications

* Controller - General of Patents, Designs and Trademarks
**News**

* GI Tag accorded to ‘Kamalapur Red Banana’, of Kalaburagi District, Karnataka has lapsed
  
  ➔ Sep 4, 2009 - Sep 3, 2019

* Kamalapur Red Banana
  
  ➔ Rare crop
  ➔ Low survival rates
  ➔ Cannot withstand winds of average velocity
  ➔ Bunches to attain maturity → Takes almost 1 year
  ➔ High demand in metros and neighbouring states

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**GI Tag → Bananas**

* Nanjangud Rasabale/Banana - 2005 - Karnataka
  
  Virupakshi Hill Banana → 2008 - Tamil Nadu
  
  Sirumalai Hill Banana
  
  Chengalikodan Nendran → 2014 - Kerala
  
  Bananas
  
  Jalgaon Banana - 2014 - Maharashtra
  
  + Kamalapur Red Banana - 2009 - Karnataka

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**Practice Question – Prelims**

Q. Consider the following pairs.

<table>
<thead>
<tr>
<th>Banana Variety (GI Tag)</th>
<th>State</th>
</tr>
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<tbody>
<tr>
<td>1. Virupakshi Hill Banana</td>
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</tr>
<tr>
<td>2. Sirumalai Hill Banana</td>
<td>Kerala</td>
</tr>
<tr>
<td>3. Chengalikodan Nendran banana</td>
<td>Tamil Nadu</td>
</tr>
</tbody>
</table>

Choose the correct pair/s from the options given below.

a) 1 only
b) 2 and 3 only
c) All the above
d) None of the above
Global Tobacco and Nicotine Forum

* Sep 21-26, 2019 - Washington, D.C., USA

* to discuss how to advance the tobacco and nicotine industries’ successful transformation
* annual tobacco event - aimed at promotion of tobacco industry globally

**SDG Targets**

* Strengthen the prevention and treatment of substance abuse
* Strengthen the implementation of WHO Framework Convention on Tobacco Control (FCTC) in ‘all’ countries

⇒ Participation of Indian Official would amount to violations under

⇒ The Cigarettes and other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003

⇒ “no person shall take part in any advertisement which directly or indirectly suggests or promotes the use or consumption of Cigarettes or any other tobacco products” (Section 5)

⇒ WHO Framework Convention on Tobacco Control

⇒ Parties to protect “tobacco control and public health policies” from the commercial and other vested interests of the tobacco industry (Article 5.3)
Practice Question – Prelims

Q. Consider the following statements.

1. The main duty of the Tobacco Board of India is to prevent the usage of Tobacco in India and the world.

2. It is a statutory body that is established for the purpose of promoting the development of Tobacco Industry in India.

Which of the above statements is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2
I. UN Climate Action Summit, Sep 21-23, 2019, New York

*UN Secretary General - Antonio Guterres

> Leaders of all nations should come with concrete realistic plans to enhance their NDCs by 2020, in line with reducing greenhouse gas emissions by 45% over the next decade, and to net zero emissions by 2050.

*2015 → 21st Conference of Parties (COP)
- United Nations Framework Convention on Climate Change - Paris Climate Agreement was formed

*Nationally Determined Contributions of India

1. ↓ greenhouse gas emissions by 33-35% of its GDP by 2030 - from 2005 levels
2. 40% power capacity from non-fossil fuel sources by 2030
3. Additional carbon sink - 2.5 to 3 billion tonnes of CO₂ equivalent by 2030
4. Adapt to Climate Change

*Visible impacts by Climate Change

> 5 years following 2015 - warmest period
> Rising sea level rise
> Forest fires in Amazon, Central Africa, Siberia
> Individual events linked to Climate Change
Pledges made by countries in Paris Climate Agreement - 2015 likely to be met

Scientific & experiential evidence of climate change have spurred social actions - recent youth protests

II. Global Climate Politics

Lack of interest by governments

- Rise in nationalism - goes against principle of collective action
  
  - E.g.: U.S.'s measures

Two pronged strategy

- Diplomatic route - role of Climate Champion Countries
  
  - Underwhelming response
    
    - Small & mid sized countries
      
      - Committed to achieve net carbon neutral by 2050
    
    - Large countries → No participation
    
    - China & India → Issued statements
  
  - Shows the entrenched positions of countries in the name of nationalism
  
  - International Situation, even backed by science and popular mobilisation → unlikely to shift entrenched national politics

Economic sphere - Focus on renewable energy, building resilience etc.

- Indifference of large countries - US, Brazil, Japan

III. Future path for India

1. Should work for enhanced global collective action
   - India is most vulnerable to climate change

2. India - pursue actions to tackle climate change along with development goals
   - But inconsistencies in India's actions

3. Aim for a low carbon future + development
   - E.g.: India and China in Africa - focus on renewable energy oriented growth
   - Political, environmental and economic growth

Conclusion

- Diplomatic approach based on strong domestic foundation → factor in climate change in future development goals
Practice Question – Prelims

Q. Consider the following statements regarding Nationally Determined Contribution of India.

1. India aims to reduce the emissions intensity of its GDP by 33 to 35 percent by 2030 from 2005 levels.

2. India aims to create an additional carbon sink of 2.5 to 3 billion tonnes of carbon dioxide equivalent through additional forest and tree cover by 2030.

Which of the statements given above is/are correct?

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PRACTICE QUESTIONS DISCUSSION
Practice Question – Prelims

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Reference Question

Prelims 2019

Q. As per the Solid Waste Management Rules, 2016 in India, which one of the following statements is correct?

(a) Waste generator has to segregate waste into five categories.
(b) The Rules are applicable to notified urban local bodies, notified towns and all industrial townships only.
(c) The Rules provide for exact and elaborate criteria for the identification of sites for landfills and waste processing facilities. (Correct answer)
(d) It is mandatory on the part of waste generator that the waste generated in one district cannot be moved to another district.

Reference Question

Prelims 2019

Q. In the context of which one of the following are the terms ‘pyrolysis and plasma gasification’ mentioned?

(a) Extraction of rare earth elements
(b) Natural gas extraction technologies
(c) Hydrogen fuel-based automobiles
(d) Waste-to-energy technologies (Correct answer)
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