

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5301

J

Unique Paper Code : 2164001005

Name of the Paper : Green Belt Development and Urban Management for Smart Cities

Name of the Course : **BOTANY – GE**

Semester : II

Duration : 2 Hours

Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **four** questions in all.
3. Question No. 1 is compulsory.
4. Attempt all parts of a question together.
5. **All** questions carry equal marks.

1. Answer following questions :

(a) Define the following (**any five**) :

(1×5=5)

- (i) GHGs
- (ii) CPCB
- (iii) GIS
- (iv) UNFCCC
- (v) NFTP
- (vi) Carbon credit
- (vii) Environmental Impact Assessment

(b) Fill in the blanks : (**any five**)

(1×5=5)

- (i) The first green belts were designated in _____ city, as a result of the campaigns, in 1930s.
- (ii) The plant species identified for greenbelt development should be planted using _____ technique.
- (iii) Greenbelt in India refers to a _____ zone.
- (iv) As per the clause _____ % of total land area should developed as part of green belt.
- (v) The GWP of CO₂ is _____ .

P.T.O.

(vi) A plant species that can be used in green belt development in Delhi is _____ .

(c) Match the following :

(1×5=5)

A. Dry Deposition	(i)	Pollutants in cloud water
B. Wet Deposition	(ii)	Total organic carbon
C. Greenhouse Gas	(iii)	Global warming potential
D. GWP	(iv)	Gaseous Fine particulate 0.1-0.2 μ
E. TOC	(v)	Methane

2. Write short notes on the following (**any five**) :

(3×5=15)

- Ecosystem services
- Indicators for selection of pollution mitigating plants;
- Wetlands values and functions
- Role of macrophytes in constructed wetlands
- Advantages and applications of Green Belt
- Methods of Planting and Propagation

3. Differentiate Between (**any three**) :

(5×3=15)

- Global warming and Ozone layer depletion
- BOD and COD
- Natural wetlands and constructed wetlands
- Green sequestration and Carbon credits
- Indicator species and tolerant species for pollutants.

4. Describe the following :

- Various sources and types of emissions. (8)
- Methods of estimation and monitoring of pollutants. (7)

5. Answer the following :

- What are the physical and chemical characteristics of freshwater wetlands? (6)
- Describe the types of constructed wetlands. (9)

6. Describe the history and Concept of Green Belt. What are the recommended Guidelines for green belt development for industries? (15)

(100)