

Acads FORESTRY

BASICS-FORESTS

Section 1A/1/1



BASICS – FORESTS [PYQS]

PYQS

Question			
Give the legal definition of forests in India. Write about the major groups of forest types in India.	1A/1	2011	10
Basis of forest classification and why there is need for such classification.	1A/1	2012	5
Based on the objectives, what are the different classifications of the 'Forestry'?	1A/1	2013	10
Define Silviculture. Relate the applications of silviculture to different branches of forestry.	1A/1	2020	8
Justify that the study of silvics is essential for the successful afforestation program in India.	1A/1	2021	8
Discuss in detail the protective role of national forests in India.	1A/1	2012	10
Describe the tangible and intangible benefits of forests.	1A/1	2011	10
Explain the role of forest in environmental conservation	1A/1	2016	10

Explain the role of forest in environmental conservation	1A/1	2016	12
Comment "Forest has moderating influences on soil and air temperature."	1A/1	2016	8
Discuss the impact of forest on the climate of a locality, how do forest affects soil and water conservation.	1A/1	2007	20
Discuss the role of forest in the interception, surface runoff, infiltration of rainfall, regulation of stem flow, and maintaining soil fertility.	1A/1	2012	5

BASICS – FORESTS

1. FORESTS

Legal Definition

Any land declared as such by Central, state or local Law. In Godavarman case

Supreme Court under 2024 judgement

directed MoEFCC to use broad and all-encompassing definition of forest in the landmark Godavarman Case (1996)

Godavarman Case (1996)

Apart from those notified and found in government records, all forests resembling “dictionary meaning” would be entitled to protections under the Forest (Conservation) Act, irrespective of ownership and status

Smart Study

Legal definition alone is enough.
Avoid memorising too many definitions - technical, non-technical etc.

Mnemonics and Memory Tricks

God is all encompassing, Hence Godavarman gave all -encompassing definition

GOD - Godavarman, Overarching, Dictionary

2. BASIS FOR CLASSIFICATION

Need for Classification

- Study and characterise different forest types
- Develop suitable silvicultural management techniques for different forests
- Avoid wastage of resources and save money by avoiding failure.

IFA 1927

- PVR U - Protected, Village, Reserved, Un-classed

Ownership

Government Owned, Community forest, Private Forest, Panchayat

Based on Age

Even/Regular and Uneven/Irregular

Modes of regeneration

High/Seedling Forests and Coppice/Root Forests

Composition

Pure Forest and Mixed Forests

Growing Stock

Normal/Ideal and Abnormal Forest

Champion and Seth (1968)

To be discussed next. Also, one complete chapter is going to be dedicated for C&S Classification

Mnemonics and Memory Tricks

IFA 1927 - PVR U - Those who don't go to PVR (Movie theatre) are un-classed.

3. CHAMPION AND SETH [1968]

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5 Major Groups and 16 Groups

Major Groups

- Tropical
- Mountain Sub tropical
- Mountain Tropical
- Sub-alpine
- Alpine

16 groups

We'll do it later

Mnemonics and Memory Tricks

3 tropical, 1 mountain, 2 sub, 2 alpine

Now apply PnC and write it down once by your own. Memorise it now.

4. FORESTRY

Definition

- The theory and practice of all that constitutes the creation, conservation and scientific management of forests and utilization of their resources.
- Components - Your forestry syllabus! :)

Classification
based on
Intensity

- Intensive - For maximizing production per unit area
- Extensive - Also Known as Multiple use Forestry

Classification based on Objectives

Production Forest	Managed primarily for its produce. Also called National Forest - maintained and managed to meet the needs of defence, communication, industry and other general purposes of public importance
Protection Forest	Area wholly or partly covered with woody growth managed primarily to regulate stream flow, prevent erosion, hold shifting sand etc.
Social Forestry	FERU - Farm, Extension, Recreational, Urban. <This will be covered under 1B/1 topic - Social Forestry>
Fuel Forest	Raised on village wasteland to provide fuel, small time, fodder etc to the village communities living far away from government forest
Farm Forest	Raised on farms and its joining area, either as individual scattered trees or collection of trees to meet the requirement of fuel and fodder of the farmers and have a beneficial influence on agriculture

Mnemonics and Memory Tricks

FERU - Farm, Extension, Recreational, Urban

Classification based on objectives closely resembles forest uses template

5. SILVICS VS SILVICULTURE

Silviculture	Silvics
EDCR - Establishment, Development, Conservation and regeneration	- LG - Life History - Phenology, Growth and development - General Characteristics - Life form, tree morphology, Pysiology
- Economics related - Increasing Forest Area - Afforestation, reforestation - Rotation Period - Controlling Composition - Exotics	To study phenology, growth, development
Theory + Practice	Theory
Broader	Narrow
Application of Silvics	Principle for silviculture

Mnemonics and Memory Tricks

Silviculture - EDCR - Establishment, Development, Conservation, Regeneration

Silvics - LG

6. USES OF FORESTS

Smart Study

There is no need to memorise these points. Most of it can be generated using common sense. What you need to remember is general classification

Mnemonics and Memory Tricks

Remember level 1 classification only for each category

1. Productive: TIN FFF - Timber, Industry, NTFP,, Food, Fodder, Fuel
2. Protective: SWAN - Soil, Water, Air, Noise
3. Misc: PAD - Pscho, Aesthetics, Diversity (You write Misc things on a writing PAD)

Productive/Economic Use

Category	Uses	Description
Timber	1. Construction Material	
	2. Furniture	
	3. Paper and Pulp	
	4. Poles and Fencing	
	5. Wooden Handicrafts	
NTFP (Non-Timber Forest Products)	1. Medicinal Plants	

	2. Resin and Gums	
	3. Edible Products	
	4. Bamboo	
	5. Essential Oils	
Fuel Wood/Fodder/ Fertilizer	1. Firewood	
	2. Fodder	
	3. Green Manure	
	4. Charcoal Production	
Industrial Uses	1. Rubber	
	2. Timber for Paper & Packaging Industry	
	3. Biofuel Production	
	4. Resin for Varnish and Paint Industry	
	5. Wood in Chemical Industry	

Protecting/Regulating Use

Comp onent	Role	Description
Soil	1. Surface Runoff Prevention	
	2. Nutrient Leaching Prevention	

Water	3. Binds the Soil	
	4. Nutrient Recycling	
	5. Adds Organic Matter	
	1. Water Cycle Regulation	
	2. Groundwater Recharge	
Air	3. Evapotranspiration	
	1. Oxygen Production	
Noise	2. Biogeochemical Cycles	
	1. Noise Pollution Absorption	

Misc

Component	Role	Description
Diversity	1. Genetic Diversity	
	2. Biodiversity	
Aesthetics	1. Natural Beauty	
	2. Ecotourism	
Psychological Well-being	1. Stress Reduction	
	2. Connection to Nature	
	3. Cognitive Benefits	

Smart Study

Descriptions - Intentionally left blank.