



B. Sc. (Botany) SEMESTER-V

Paper-II

(Plant Ecology and Organic Farming)

UNIT-I

Plant and environment:

Ecology:

Definition, branches and significance.

<https://youtu.be/WTBjc-QPrJk?si=JrXFubiebYqnpjPdZ>

Climatic factors:

Atmospheric (Gaseous composition);

<https://youtu.be/1mZ-ZY1fkZo?si=mZheXeTEEPjz1GOA>

Effect of Light and Temperature on vegetation

<https://youtu.be/auVOYzMRLuo?si=L1QI7cXnFPf3i3X4>

<https://youtu.be/m5fBIC5jyBQ?si=0PIwWc4EByFa39QG>

Edaphic factors:

Pedogenesis, Soil profile, Soil micro-organisms

<https://youtu.be/3agXuyAtRMo?si=EDrkBa8elHrIk7Cw>

Soil Profile

<https://youtu.be/9dwSfdB7pJY?si=XDJFC7LUPyUAjiqr>

UNIT-II

Ecosystem:

Definition, types

<https://youtu.be/IgbDxk9fI1s?si=zIkKZTuk5eC3JntJ>

Components: Biotic and abiotic components

<https://youtu.be/2ngyC88JH-M?si=y0F2gidy1pLoE8Gw>

Food chain

<https://youtu.be/oMQHEtDCklc?si=hvhsYaVEIQBko5c->

Food web



<https://youtu.be/mNxoL-2iADs?si=4RxouUKgDiv77XM8>

Ecological pyramids

<https://youtu.be/ZG3lc246kpw?si=sGrFDh4d5h4mGgXj>

Autecology: Definition, Importance,

https://youtu.be/WH_pTrZt5GI?si=vefW-gPtulxwvI6I

Ecads

<https://youtu.be/G5YBILH4HIY?si=61bXSFasRFDiH-T8>

<https://youtu.be/E9ShkfbZ3vo?si=hE2jlZKGUbW2Bix4>

Ecotypes: Characteristics and importance

<https://youtu.be/Z8BvJvtXir0?si=J2Fx8FFu-fFwC4I6>

<https://youtu.be/E9ShkfbZ3vo?si=hE2jlZKGUbW2Bix4>

Growth curve

https://youtu.be/cQNviP0uNGY?si=HwtJgigi_Trp1Ur5

Synecology: Definition, Study of community

https://youtu.be/WH_pTrZt5GI?si=XdSbIF_ePb6aaQSI

Quantitative characteristics: Frequency, Density Abundance

https://youtu.be/726gHYX86tI?si=Iaqajj4Ju_pAHMur

<https://youtu.be/d9gSY4RneVM?si=hgnMXnn9qXP65Rjn>

https://youtu.be/FffwLci_jq8?si=pkDnS5_pN1oGWNJ6

Qualitative characteristics: life forms,

https://youtu.be/RcSzQUszgQ8?si=Z-f_IrT55Af77eQW

Synthetic characteristics: Presence, fidelity and dominance

<https://youtu.be/j612qASX1bw?si=83YTO3lyVWCxD2PB>

UNIT-III

Plant Succession and adaptations:

Plant Succession: Definition, Causes of succession,

https://youtu.be/0hIAWfNHUwA?si=kLyW_DuqvV7cvB-u

Hydrosere

<https://youtu.be/bhbQXvM0-9Q?si=kxDOmnfZ0OD0cQU->



Xerosere

<https://youtu.be/WmbkvcQuLJ0?si=AgGsOSnfLJFk3Auw>

Plant Adaptations: Morphological and anatomical adaptations Hydrophyte (Hydrila, Nymphaea)

https://youtu.be/Y8OdtHAPIKI?si=M3Rv9gup105w_ya5

Xerophyte (Casuarina, Nerium), Halophyte and Epiphyte (Vanda)

<https://youtu.be/f8G5MCKr-wo?si=ce1N3wgkvLVtnxpg>

Biogeochemical cycles:

Nitrogen and Phosphorous

https://youtu.be/Bn41lXKyVWQ?si=gkbZ_gxA5T9UpvJc

UNIT-IV

Skill development: Organic farming:

Organic farming: Definition, concept, advantages and disadvantages

<https://youtu.be/yuijJKPVFUs?si=yKk5p0r2BA1nn7ot>

Green manure

https://youtu.be/zFV19PzKwvo?si=KPbipqE_uX0JrMyv

Organic fertilizers

https://youtu.be/ZngzSHtcq2A?si=LOrNJH_dBxaLsIdi

Preparation of Bio compost, preparation of vermicompost and its type

<https://youtu.be/1iEpSHQg9rk?si=yDDtW71jy1ONeGS5>

Organic manure

<https://youtu.be/BngaQJjHE2c?si=F72awC7Y2LMMY8Co>