



Karanja Auto College, Karanja, Mayurbhanj

CC-IX:Plant ecology and Phytogeography

Unit-1

(1) Fill in the blanks with one word (1×8)

- (i) The group of inter- breeding individuals belonging to same species and living in a common geographical area is called _____.
- (ii) The major regional ecological community of plants and animals are called _____.
- (iii) The study of relationship of a single population to its environment is called _____.
- (iv) The study of relationship of different communities group of population to their environment is called _____ ecology?
- (v) The pedosphere is a part of the _____ made up of soil and dirt.
- (vi) All the water on, in and surrounding the earth called _____.
- (vii) When water goes from being a gas to a liquid, that process is called _____.
- (viii) Soil, water and climate constitute _____ component of the ecosystem.

(2) Short answer type: Answer the questions in 2-3 sentences (1.5×8)

- (i) Describe different biotic components of an ecosystem?
- (ii) Describe the effect of light and temperature on the distribution and morphology of organism?

(iii) Describe the biotic components of an ecosystem?

(iv) What is autecology?

(v) Explain soil profile?

(Vi) What is ecosystem?

(vii) What is homeostasis?

(Viii) What is biosphere?

(3) Short answer type: Answer the questions within 75 words (2×8) (i)

What is Autecology and give two important features of Autecology?

(ii) State biological organizational levels?

(iii) What is symbiosis and state two examples?

(iv) What are physical components of environment?

(V) Give a brief note on lithosphere?

(Vi) Name the layers of atmosphere?

(Vii) what is system ecology?

(Viii) Give a brief note on inter- relationships between living world and environment?

(4) Long answer type: Answer the questions with 500 words(6×4) (i)

Distinguish between Autecology and Synecology?

(ii) What are levels of organization and describe different levels of organization?

(iii) Give an account of hydrosphere?

(iv) Describe adaptation of plants to their variation with respect to light, temperature, wind and fire?

Unit-2

Q1. Fill in the blanks (1 mark each)

- a) Which type of water is largely available to plants.
- b) All dead, fresh organic matter fallen on the ground is called ____
- c) ____ region of soil profile is rich in organic matter
- d) The study of soil is called ____
- e) ____ are generally infertile, nutrient poor soils
- f) The break down of bigger rocks into fine, smaller mineral particles is called ____
- g) Modification of mineral material through interaction and lead to the development of potential soil types ____
- h) Atmospheric moisture is present as visible vapour, known as ____ or ____

Q2. Short Answer type : (Within 2-3 sentences)

- a) What is Drizzle?
- b) What is Snow?
- c) What do you mean by humidity?
- d) What is the difference between “Steet” and “hail”?
- e) What is humus?
- f) What is solum?
- g) What is Echard?
- h) What is Holard?

Q3. Short Answer Type : (Within 75 words) a)

Write notes on soil profile

- b) Pedogenesis
- c) Explain Laterization and podolisation
- d) Hydrological Cycle
- e) Podsolization
- f) Laterization
- g) Weathering
- h) Precipitation (Racin fall)

Q4. Long Answer type : (Within 500 words)

- a) Write brief account of different complex of soil complex?
- b) Define soil profile. Write a short account of factors that govern the soil formation?
- c) What is soil? Write a brief account of mechanisims of soil formation?
- d) Describe the structure of water and the different source of water?

- e) What is precipitation? Describe the types of precipitation?
- f) Describe the Hydrological cycle?
- g) Describe role of climate in soil development?
- h) What is water Table and describe importance of water?

Unit-3

1. Answer the following questions:(1×8)

- (1) The carrying capacity of population is chiefly controlled by ____..
- (2) ____ is a collection of similar type of organisms?
- (3) ____ refers to the size of population per unit area.
- (4) ____ is the outward movement of individuals.
- (5) In ____ dispersion individuals are clustered in groups.
- (6) ____ is the graphical representation in which the number of individuals in various age groups are presented.
- (7) ____ is the pioneer in hydrosere.
- (8) ____ is the process of establishment and initial growth of immigrants.

(2) Answer the following questions:(1.5×8)

- (1) Natality (2) Nudatio (3) Carrying capacity (4) Significance of ecological succession (5) Woodland stage (6) Crustose Lichen (7) Habitat (8) Ecesis

(3) Answer the following questions:(2×8)

- (1) Ecological amplitude (2) Ecological niche
- (3) Ecotone (4) Ecotype (5) Ecade
- (6) Types of succession (7) Population density
- (8) S-shape growth curve (9) J-shape growth curve
- (10) Age pyramid

(4) Answer the following questions:(6×4)

- (1) Define population? Give an account of characteristic of a population?
- (2) Give an account of population dynamics?

- (3) Enumerate ecological speciation?
- (4) What is community? Describe the characters of plant community?
- (5) Give an account of hydrosere with examples?
- (6) Describe the causes and types of ecological succession?
- (7) Illustrate the various stages of xerosere?

Unit-4

TQ1. Fill in the blanks (1 mark each)

- a) The interlocking pattern of food chain _____
- b) The living organisms of an ecosystem is called _____
- c) Primary consumer is always a _____
- d) In a trophic level, which is always in 1st position _____
- e) Maximum number of endemic plant species occur _____
- f) One of the global hottest hot spots of biodiversity in India is _____
- g) The first list of Various principles governing geographic distribution of plants was provided by _____
- h) _____ Ecological pyramid is always upright

Q2. Short Answer type : (Within 2-3 sentences)

- a) What is ecology ?
- b) What is Ecosystem?
- c) Write 4 abiotic components of an ecosystem?
- d) Discuss the pond ecosystem?
- e) Write the names of major natural forest types of India?
- f) Write the names of 5 major natural grass land types of India.
- g) Write the names of 5 hottest hot spots of the world?

h) Describe the forest ecosystem?

Q3. Short Answer Type : (Within 75 words)

a) Food Chain

b) Food Web

c) Explain primary & net productivity

d) Energy flow in the ecosystem follows the laws of thermodynamics, comment.

e) Productivity

f) Western Ghats

g) Endemism

h) Ecological Pyramid

Q4. Long Answer Type : (With 500 words)

a) What is phytogeography? Write a short account of basic principles governing geographical distribution of plants?

b) Write a short account of natural forest or grassland vegetation of India?

c) Write an account of biogeographic regions of India?

d) Define ecosystem. Write a brief account of the structure and function of a typical ecosystem?

e) Write a brief account of the biotic & biotic & abiotic components of a freshwater ecosystem studied by you?

f) What do you understand by ecosystem energetic? Write a brief account of energy flow in an ecosystem?

g) Define biogeochemical cycles. How human activities could affect these cycle?

h) Define productivity? Write a brief account of net primary productivity of major kinds of ecosystem?

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