

AP-428

6. (m) Describe secondary productivity. 4
 (n) Define Biomass and its concept. 4
 (o) Describe general process of succession. 4

OR

- (p) Define Productivity and its types. 4
 (q) Define Succession and its types. 4
 (r) Explain Ecological Niche. 4
 7. (s) Define Bioindicator and Role of Bioindicator in the environment. 4
 (t) Explain India as mega diversity nation. 4
 (u) Define Biodiversity and its types. 4

OR

- (v) With suitable example explain Population Indicator. 4
 (w) Explain reasons for loss of biodiversity. 4
 (x) Describe the indicators of humidity and rainfall. 4

B.Sc. (Part-I) Semester-II Examination
ENVIRONMENTAL SCIENCE
(Ecology and Environment)

Time—Three Hours]

[Maximum Marks—80

Note :— (1) All questions are compulsory.
 (2) Question Nos. 2-7 carry equal marks.

1. (A) Fill in the blanks :

- (i) The study of total living population with their interaction called _____. $\frac{1}{2}$
 (ii) % of CO₂ in atmosphere is _____. $\frac{1}{2}$
 (iii) _____ is the relation in which one species are benefitted and other species is harmed. $\frac{1}{2}$
 (iv) _____ are the producers in the ecosystem. $\frac{1}{2}$

(B) Choose correct alternatives :

- (i) _____ is gaseous nutrient cycle.
 (a) Phosphorous
 (b) Nitrogen
 (c) Sulphur $\frac{1}{2}$

(ii) In each ecosystem _____ components are present :

- (a) Biotic and abiotic
- (b) Only biotic
- (c) None of these ½

(iii) Temp. is a _____ factor.

- (a) Topographic
- (b) Biotic
- (c) Climatic ½

(iv) _____ shows the number of Individual organism at each level.

- (a) Pyramid of Number
- (b) Pyramid of Biomass
- (c) Pyramid of Energy ½

(C) Answer in **ONE** sentence :

- (i) Define ecosystem. 1
- (ii) What is population ? 1
- (iii) What are decomposers ? 1
- (iv) What is positive interspecific relationship ? 1

2. (a) Give short account of carbon cycle. 4
- (b) Explain rainfall and temperature as climatic factors. 4
- (c) Describe biotic factors. 4

OR

(d) Explain the scope of ecology. 4

(e) Define Biogeochemical cycle and give its significance. 4

(f) Describe Nitrogen cycle. 4

3. (g) With the help of diagram explain growth curve. 4

(h) Define population ecology and give the names of Interaction between them. 4

(i) Explain Natality and Mortality. 4

OR

(j) Describe Negative Interaction. 4

(k) Explain dispersal in population ecology. 4

(l) With the help of example explain parasitism and mutualism. 4

4. Describe the analytical characters of community structure. 12

OR

Discuss in detailed quantitative characters of community structure. 12

5. Define ecosystem and describe pond ecosystem with significance. 12

OR

Describe energy flow in forest ecosystem. Draw a diagram of 'Y' shaped energy model. 12