

Solution

Q.1A) Fill in the blanks 05

- a) Mortality b) Biotic potential c) Nitrosomonas  
 d) Panthera leopercia e) Kerala

B) Match the columns 05

- a) Blue green algae - Nostoc  
 b) Rhizobium - Root nodules  
 c) Anadromous - Tiger prawn  
 d) Catadromous - Arctic tern  
 e) Indian Pangolin - Mamiscrassi

C) True or false 05

- a) False b) True c) True d) True e) False

D) Answer in one sentence 05

a) Parasitoidism - Parasitoidism is the parasitic relationship where the parasite at some stage kills the host.

b) Mutualism - It is a relationship between two organisms in which both are benefited and neither of them is harmed.

c) Population density - It is the total number of organisms of the same species living in a unit area/volume at a given time.

d) United Nations Education, Scientific and Cultural Organisation

e) Biopiracy - It is an unauthorized use of biological resources and traditional knowledge and subsequent

claim of intellectual property right with no  
compensation for country of origin. (2)

Q.2 A) Introduction to growth patterns 02 marks  
Types & description 10 marks

OR

Q.2 A) Introduction to age structure 02 marks  
Types and description 08 marks

Q.2 B) a) Definition of fecundity 01 mark  
Explanation 04 marks

b) Description of distribution patterns & its types 05 marks

c) Natality - Definition 01 mark  
Explanation 04 marks

d) Survivorship curve types and explanation 05 marks

Q.3 A) Introduction to biotic components of an ecosystem 02 marks  
Description 08 marks

OR

Q.3 A) Description of temperature as biotic factor 02 marks

Different aspects of temperature on biological systems 08 marks

3

- Q.3 B) a) Introduction to abiotic components in lentic ecosystem 02 marks  
Explanation 03 marks
- b) Water cycle - diagram 01 mark  
Description 0.4 marks
- c) Introduction of pyramid of biomass 02 marks  
Description 03 marks
- d) Commensalism definition 01 marks  
Description with example 04 marks
- Q.4) a) Introduction to Jim Corbett National Park 04 marks  
Explanation of two representative types 06 marks
- b) Definition & description of ecotourism 04 marks  
Ecotourism in Pune & Corhwal description 04 marks
- c) Introduction to Bandipur National Park - 04 marks  
Description 06 marks
- d) Explanation of any two plant patents - Neem, Haldi or Basmati 10 marks

(4)

- Q-5) a) Definition of life table  
Description 07 marks  
04 marks
- b) sex ratio definition  
Description 01 marks  
03 marks
- c) Sulphure cycle diagram  
Description 01 marks  
04 marks
- d) Food chain diagram -  
Description 01 mark  
04 marks
- e) Threatened species definition  
Description 01 mark  
04 marks
- t) Project Rhinoceros introduction  
Description 01 marks  
04 marks.