

Sardar Patel University
M.Sc. (Integrated) Biotechnology (IGBT), 7th Semester
Theory Examination
Thursday, 20th October 2016
02:30 P.M. to 05:00 P.M.
PS07CIGEB2-(Ecology and Biodiversity)

Note:

Total marks: 70

- 1) Attempt all the questions (including multiple choice questions) which is to be written in the provided answer book only.
- 2) Draw neat and labeled diagram wherever necessary.

Q.1

Multiple choice questions:

(08)

- (i). In the association between members of different species only one is benefited and neither is harmed

(a) Mutualism	(c) Parasitism
(b) Commensalism	(d) Predation
- (ii). A permanently frozen deeper soil layer, which may exist at a depth of centimeter to meter is found in _____ region.

(a) Alpine	(c) Tundra
(b) Meadow	(d) Dry deciduous forest
- (iii). Moving out of populations permanently which decrease populations density

(a) Emigrations	(c) Mitigations
(b) Immigrations	(d) None of them
- (iv). Natality rate is determined by

(a) N	(c) ΔN
(b) n	(d) None of them
- (v). UNESCO declared _____ International Decade of Biodiversity.

(a) 2010-20	(c) 2001-10
(b) 2011-21	(d) 2000-10
- (vi). The number of subspecies, varieties, forms or strains which slightly differ from each other

(a) Species diversity	(c) Ecosystem diversity
(b) Genetic diversity	(d) None of them
- (vii). Taxa with small populations that are not endangered at present but are at risk.

(a) Rare	(c) Intermediate
(b) Extinct	(d) Endangered
- (viii). Botanical Garden is the best example of _____ methods of plant biodiversity

(a) Ex-situ	(c) In-situ
(b) Both A and B	(d) None of Above

- Q.2** **Answer the following (Any seven)** **(14)**
- (i). What is Mutualism?
 - (ii). Enlist Niche Types.
 - (iii). What are the causes of succession
 - (iv). Define mortality and Natality
 - (v). Explain in brief about species diversity
 - (vi). What is the significance of IUCN red data books
 - (vii). Enlist the goals of biodiversity conservation
 - (viii). Enlist the *ex-situ* biodiversity conservation methods
 - (ix). Define Cryo-Preservation.
- Q.3** (a) Enlist the types of interaction and explain in detail negative interaction with suitable examples. **(06)**
- (b) Write a note on biomes of India. **(06)**
- OR**
- (b) What is niche overlap? Explain fundamental and realised niche. **(06)**
- Q.4** (a) Explain in detail age structure and age pyramid. **(06)**
- (b) Enlist population size regulators and explain density dependent factors. **(06)**
- OR**
- (b) Write a note on xerosere succession. **(06)**
- Q.5** (a) Explain in detail the causes for loss of biodiversity **(06)**
- (b) Explain in brief about endangered flora and fauna of India **(06)**
- OR**
- (b) Describe economic important of mammals. **(06)**
- Q.6** (a) Explain goals, objectives and guiding principles of Environmental education. **(06)**
- (b) Explain in details methods of *in-situ* conservation. **(06)**
- OR**
- (b) Explain in details methods of *ex-situ* conservation. **(06)**

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