

(A-35)

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SARDAR PATEL UNIVERSITY
M. Sc. Integrated Biotechnology (IG-EBT) 7th Semester
Theory Exam – April 2016
PS07CIGEB2 – Ecology and Biodiversity
12th April 2016 (Tuesday), 2:30 pm to 5:30 pm

Maximum Marks: 70

Note:

- 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 Choose the correct option: (08)

- (i) The term symbiosis with similar interaction was proposed by
(A) Odum (C) Calarke
(B) De Bary (D) Ms Dougall
- (ii) In the association between members of different species one is harmful to other and get benefited
(A) Mutualism (C) Commensalism
(B) Exploitation (D) A and B both
- (iii) Natality rate is determined by
(A) N (C) ΔN
(B) n (D) None of them
- (iv) The process of successful establishment of the species as a result of adjustment
(A) Climate (C) Ecesis
(B) Immigration (D) Reaction
- (v) The number of subspecies, varieties, forms or strains which slightly differ from each other
(A) Genetic diversity (C) Ecosystem diversity
(B) Species diversity (D) All of them
- (vi) The value arising from an actual use made of a given component of biodiversity
(A) Direct use value (C) Indirect use value
(B) Primary value (D) Use value
- (vii) Acquire an awareness of and sensitivity to the total environment and its allied problems
(A) Knowledge (C) Awareness
(B) Attitude (D) Skill
- (viii) Taxa with small populations that are not endangered at present but are at risk
(A) Rare (C) Intermediate
(B) Extinct (D) Endangered

[P.T.O.]

Q. 2 Answer the following (Any seven) (14)

- (i). What is character displacement?
- (ii). What is Niche overlap?
- (iii). State Gause's principle
- (iv). Explain in brief exponential growth curves
- (v). Define Xeroseres and hydroseres?
- (vi). What are hotspots?
- (vii). Enlist the goals of biodiversity conservation
- (viii). Enlist the *ex-situ* biodiversity conservation
- (ix). Explain in brief artificial insemination

Q. 3 (a) Explain in detail negative interaction with suitable examples. (06)

(b) Write a note on biomes of India. (06)

OR

(b) What are plate tectonics? Explain the events of continental movements. (06)

Q. 4 (a) What is mortality? Explain survivorship curve. (06)

(b) Write a note on population size regulators. (06)

OR

(b) What is ecological succession? Write down general process of succession. (06)

Q. 5 (a) Define the term biodiversity. Explain the various types of diversity. (06)

(b) Write a note on values of biodiversity. (06)

OR

(b) Explain the major causes for the loss of biodiversity. (06)

Q. 6 (a) Explain goals, objectives and guiding principles of Environmental education. (06)

(b) Write a note on environmental education in India. (06)

OR

(b) Explain methods of *in-situ* conservation. (06)

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