



BIOLOGY

BOOKS - NEW JYOTHI BIOLOGY (TAMIL ENGLISH)

BIODIVERSITY AND CONSERVATION

Ncert Text Book Questions

1. Name the three important components of biodiversity.



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2. How do ecologists estimate the total number of species present in the world?

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3. Give three hypotheses for explaining why tropics show greatest levels of species richness.

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4. What is the significance of the slope of regression in a species - area relationship?

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5. What are the major causes of species losses in a geographical region?

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6. How is biodiversity important for ecosystem functioning?

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7. What are sacred groves? What is their role in conservation?

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8. Among the ecosystem services are control of floods and soil erosion. How is this achieved by the biotic components of the ecosystem?

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9. The species diversity of plants (22 per cent) is much less than that of animals (72 per cent). What could be the explanations to how animals achieved greater diversification?

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10. Can you think of a situation where we deliberately want to make a species extinct? How would you justify it?

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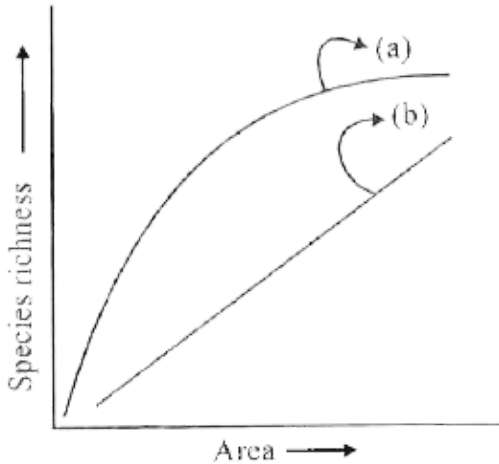
New Evaluation Type Questions

1. Complete the following, the name of scientists and their area in biodiversity conservation is given.

a. _____ (a)	: Biodiversity
b. Robert May	: _____ (b)
c. _____ (c)	: Species richness
d. Paul Ehrlich	: _____ (d)

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2. A graph on species richness is given below. Complete the equations (a) and (b) according to Alexander von Humboldt.



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3. The table shows the number of species of birds seen in some places.

Colombia - 1400

New York - 105

Greenland - 56

India - 1200

South America (Amazon) - 1300

What could be the reason for the difference in the number of bird species present? Justify your answer.



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4. In India, we have our own species of cockroach *Blatta orientalis*. But now we can see only American species *Periplaneta americana*.

- A. What is the reason for this condition?
- b. Give another example for the same condition.
- c. Mention other causes for biodiversity losses.



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5. Some plants are used to extract chemicals used as drugs

a. Mention the type of products extracted.

b. Give some examples of this products and their uses.

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6. Recently a country held its cabinet meeting under the sea.

a. Name the country.

b. Why was it done?

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7. Name the district in Kerala

a. which has the highest forest coverage?

b. which has the lowest forest coverage?

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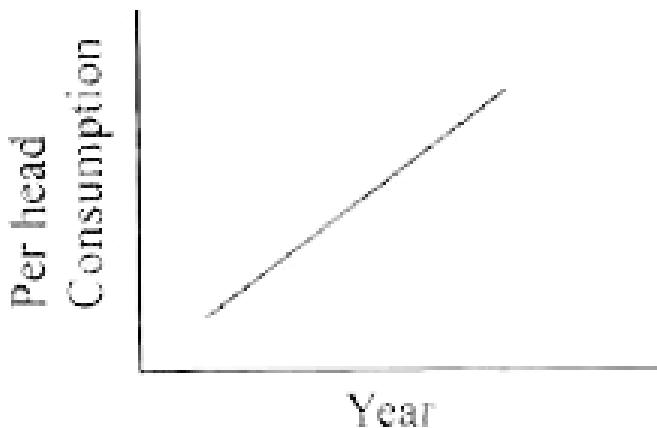
8. Suppose you are the Secretary of your school Science Club and you are invited by the local body member to give a talk on "biodiversity" for the literacy mission. Prepare a note to be presented.

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9. Prepare a notice to be distributed to the lower classes on the importance of the 'Conservation of Biodiversity'.

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10. The graph shown below indicates the per head consumption of energy. If it is going on in this manner, there will be an energy crisis in the nearby future. So suggest an alternate way to face this situation.



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11. The Periyar Wildlife Sanctuary is the pride of Kerala.

a. Where is this sanctuary located in Kerala?

b. Give the importance of this place.



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12. The following figure is of an eminent environmentalist.



- Name the personality.
- Mention his contribution in this regard.
- To which state does he belong?



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13. There is a type of conservation of genetic resources through their maintenance within natural or man made ecosystem.

a. Which type of conservation is this?

b. Give the importance of the protected areas and the divisions involved in this.

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14. Eventhough Kerala is a small state, she has two National Parks, three Wildlife Sanctuaries and two Biosphere Reserves.

a. Prepare a radio talk on 'the conservation of nature' giving emphasis to Kerala and the animals to be protected there.

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15. We heard of the slogans "we two have two" and "one family one tree". Give the importance of these slogans according to your views.

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16. Select the correct statements from the following

- IUCN red list is a catalogue of animals facing risk of extinction
- 3rd October is observed as World Animal Day.
- Eravikulam National Park is in Karnataka.
- Morphine is extracted from *Papaver somniferum*.

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17. Based on this picture given below, prepare a short note on Eravikulam National Park.



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18. There is shift in the policy of animal collection in the zoo from 'unlimited animals and limited facilities' to 'limited animals and adequate facilities'. Give reason.

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19. Suggest a proper title for a poster that you have prepared as a part of Wildlife Week Celebrations related with 'tiger conservation'.

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20. Write a short note on Chipko Movement.

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21. Prosperity of human beings in the whole world lies in the prosperity of the nature. Justify this statement.

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22. The fragmentation of a forest and deforestation lead to the disappearance of species and drastic climatic variation.

a. Give some adverse effects of indiscriminate cutting down of forests.

b. Suggest some measures to check deforestation.

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23. Give differences between National Park, Sanctuary and Biosphere Reserves.

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24. In 1992 the Earth Summit was held at Rio de Janeiro to conserve biodiversity. Give the objectives attained by that Summit.

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25. Mention the different wildlife organisations.

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26. Silent Valley is a National Reserve Forest in Kerala. Why is it called so?

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27. Write an explanatory note on the efforts for the conservation of biodiversity in India.

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28. Briefly explain.

a. Ex situ conservation b. In situ conservation

c. Protected areas d. Biosphere Reserves

e. Red list

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29. Our wildlife resources are depleting very fast. Suggest possible measures to check the same.

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30. What was the purpose of establishing Jim Corbett National Park?

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31. Name the National Parks famous for

a. Tiger b. One horned Rhinoceros

c. Lion tailed monkey d. Nilgiri Tahr e. Asiatic lion

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32. 

a. Observe the board the write your opinion.

b. Give the scientific name of the animal.

c. Wildlife is our treasure. Give reason.

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33. 

The board you see is placed in front of a National Park. Evaluate the quotation on the board and state your opinion, keeping in mind the need for Biodiversity and Conservation.

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34. Imagine that one day the water on the whole earth disappeared. Give some consequences that we would face.

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35. The identified species of all organisms on the earth range between 1.7 to 1.8 million. Global Biodiversity Information Facility and the Species 2000 have identified the number of species in each group of animals.

- a. Name the group with maximum species identified.
- b. Name the group with the less species identified.
- c. Give an approximate number of mammalian species identified.

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36. Observe the following pie diagram and make a write up on the percentage of the threatened species in Amphibia,

Birds and Mammals.



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37. One of the chief reasons among the following for the depletion in the number of species making endangered is



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38. The given bar diagram shows the population size of *Rana hexadactyla* in the rice fields of Malabar. Observe and analyse the graph.



a. Write your findings from the graph

b. Predict the population of frogs in the near future

c. Enlist the reasons for this effect



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Questions From Edumate

1. Read the paragraph given below. Based on the paragraph and your acquired knowledge and understanding, answer the question.

"A traditional strategy for the protection of biodiversity has been in practice in India and some other Asian countries dimensions protected by tribal communities due to religious sanctity accorded to them. The sacred forests represent islands of pristine forests and have been free

from all disturbances, though these are frequently surrounded by highly degraded landscape. In India, sacred forests are located in several parts e.g. Karnataka, Maharashtra, Kerala, Meghalaya etc and are serving as refugia for number of rare, endangered and endemic taxa."

- a. In India which are the major locations of sacred forests?
- b. By considering a sacred forest in your local area, list any two ecological significances of sacred forests.
- c. Due to the religious sanctity, sacred forests are protected to a certain extent. Do you agree? Justify your opinion.

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2. Suppose the Government of Kerala sanctioned the project of a multinational company in Eravikulam National Park area offering an employment of 20,000. As the member of a state

suffering from unemployment and as a student of biology, what is your opinion? Justify.



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3. Suppose by representing your school you are participating in an inter school debate competition, organised by the Department of Forests. The topic is "Biodiversity Conservation in India is upto the marl". By supporting the topic or opposing the topic, write any four arguments you are going to raise.



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4. Observe the given diagrams



a. Read the statements and state whether the statements are True or False.

i. Endangered species are more in reptiles than in birds and mammals.

ii. Critically endangered species are more in birds than in reptiles and mammals.

b. By keeping in mind the experience of your village for the last ten years write any four reasons of the extinction of these organisms.



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1. India is developing industrially and economically. Do you agree with this type of development from an ecological perspective? Why?

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2. Suppose you are exploring the biodiversity of your village or town. How will you measure the biodiversity index?

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3. What measures will you adopt to conserve the biodiversity in our country?

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4. The Nilgiri Tahr is an endangered animal. Suggest ways to conserve this wildlife.

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5. 'Man has lost his capacity to foresee and foresight, he will meet his own end by destroying the earth.'

a. Evaluate this statement and write your opinion.

b. Predict what will happen to nature if human race is abolished.

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6. In Kerala flood due to heavy rain will be immediately followed by drought very soon.

In the light of 'wet land conservation', evaluate this problem.

How does urbanization affect the wet land flora and fauna?

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7. Gopalan cultivated a variety of fruit crops and plants in his field and Raman destroyed the fruit crops and plants and cultivated rubber trees which are double in number.

a. In your opinion which method is suitable for the ecosystem? Give reason.

b. mention any three factors for the extinction of species.

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8. a. The "Evil Quartet" is the nickname used to describe the causes of biodiversity losses. Explain the reasons leading to accelerated rates of extinction of flora and fauna.

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9. b. Philosophically or spiritually, we need to realize that every plant or animal species has an intrinsic value and we have a moral duty to protect them. Justify the statement and write down the protective measures.

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[Previous Year Competitive Exam Questions](#)

1. Which of these is an in-situ method of conservation?

- A. National park
- B. Botanical garden
- C. Tissue culture
- D. Genetic engineering

Answer: A

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2. The flora Biosphere reserve established in India for conserving the gene pool of flora and fauna and the life style of Tribals is

- A. Nilgiri Biosphere Reserve

B. Nanda Devi Biosphere Reserve

C. Utharakhand Biosphere Reserve

D. Great Nicobar Biosphere Reserve

Answer: A



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3. The taxa believed likely to join the endangered category in near future is called

A. extinct

B. rare

C. vulnerable

D. out of danger

Answer: C



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4. The World Environment Day is observed on

A. 5th July

B. 15th May

C. 5th June

D. 15th June

Answer: C



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5. Which of the following is an endangered species of India ?

A. Horse

B. Elephant

C. Indian Wild Ass

D. Tortoise

Answer: C



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6. When is the World Wildlife Week observed?

A. First week of September

B. Last week of September

C. Third week of October

D. First week of October

Answer: D

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7. Red data book provides data on

A. red flowered plants

B. red coloured fishes

C. endangered plants and animals

D. red eyed birds

Answer: C

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8. What is the animal symbol of W.W.F (World wildlife fund)

A. Dolphin

B. Kangaroo

C. Tiger

D. Giant Panda

Answer: D

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9. The flora Biosphere reserve established in India for conserving the gene pool of flora and fauna and the life

style of Tribals is

- A. Nilgiri Biosphere Reserve
- B. Nanda Devi Biosphere Reserve
- C. Utharakhand Biosphere Reserve
- D. Great Nicobar biosphere reserve

Answer: A



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10. Match items given in column I with those given in column II

Column I

Column II

- | | |
|-------------------------------|------------------------------|
| A. Rhinoceros | p. Bharatpur |
| B. Tiger Project in Karnataka | q. Tropical evergreen forest |
| C. Assemblage protection | r. Kaziranga |
| D. Silent Valley | s. National Park |
| | t. Bandipur |

A. A = t, B = r, C = p, D = s

B. A = q, B = s, C = r, D = q

C. A = s, B = r, C = q, D = t

D. A = r, B = t, C = p, D = q

Answer: D



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11. Which one is a critically endangered animal species?

A. *Antelope cervicapra*

B. *Sus salvanius*

C. *Ailurus fulgens*

D. *Calotes versicolor*

Answer: B

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12. The diversity of the habitats over the total geographical area is called

A. alpha diversity

B. beta diversity

C. gamma diversity

D. delta diversity

Answer: C



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13. Habitat loss and fragmentation, over exploitation, alien species invasion and co-extinction are the causes for

A. population explosion

B. migration

C. biodiversity loss

D. pollution

Answer: C



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14. The alien species introduced into Lake Victoria that was responsible for the extinction of cichlid fishes is

- A. African catfish
- B. Water hyacinth
- C. Carrot grass
- D. Nile perch

Answer: D



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15. In the immune system, interferons are a part of

A. Physiological barriers

B. Cellular barriers

C. Physical barriers

D. Cytokine barriers

Answer: D



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16. The immunoglobulin abundant in colostrum is

A. Ig G

B. Ig M

C. Ig D

D. Ig A

Answer: D



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17. Which of the following is an opioid drug?

A. Heroin

B. Cocaine

C. Marijuana

D. Hashish

Answer: A



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