Unit 30 · Conservation Biology

WORKSHEET

Full marks 35

Name _____ Class _____ Roll no. _____ Date _____ Marks _____ / 35

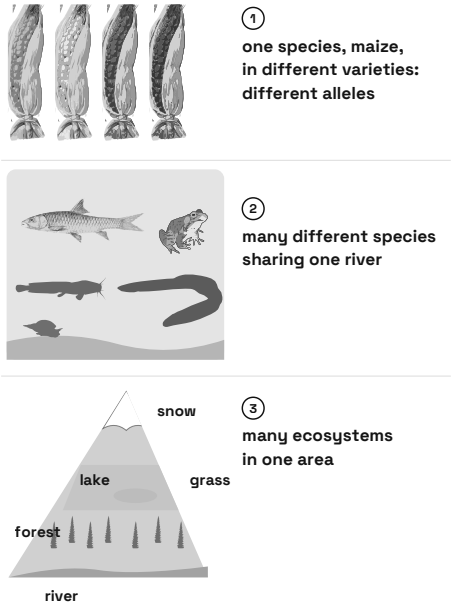
1 Key words [4]

Match each term in column A with its meaning in column B. Two items in column B are not needed. Each match carries 0.5 mark.

Column A		Column B	
1. biodiversity	☐	**a.**	protecting organisms in their own natural habitat
2. genetic diversity	☐	**b.**	protecting organisms outside their natural habitat
3. in-situ conservation	☐	**c.**	the variety of life at the level of genes, species and ecosystems
4. ex-situ conservation	☐	**d.**	an area where hunting is allowed by law, under license
5. hunting reserve	☐	**e.**	a region rich in endemic plants that has lost most of its natural vegetation
6. conservation area	☐	**f.**	a plant brought in that spreads out of control
7. biodiversity hotspot	☐	**g.**	an area where hunting is banned and people may not live
8. Ramsar site	☐	**h.**	the variety of alleles within one species
		i.	a protected area where local people go on living and using the land
		j.	a wetland listed as internationally important under a treaty

2 Label the diagram [3]

The diagram shows the three levels of biodiversity. Write the name of each level, 1 to 3. Each carries 1 mark.



① one species, maize, in different varieties: different alleles

② many different species sharing one river

③ many ecosystems in one area

1. _____ **2.** _____

3. _____

3 Multiple choice [5]

Choose the correct option for each of the following questions.

i. What is the purpose of ex-situ conservation? [1]

a. protecting organisms in their natural habitats
b. safeguarding organisms outside their natural habitats
c. conserving biodiversity within national parks
d. managing wildlife for ecotourism

ii. Which national park is famous for being the largest in the country and for Phoksundo Lake, Nepal's second largest lake? [1]

a. Langtang National Park
b. Shey Phoksundo National Park
c. Makalu Barun National Park
d. Khaptad National Park

iii. A forest in Ilam has 40 species of tree, and its rhododendrons come in red, pink and white varieties. The **varieties** of rhododendron are an example of: [1]

a. species diversity
b. genetic diversity
c. ecological diversity
d. ecosystem diversity

iv. How does a **conservation area** differ from a **national park**? [1]

a. a conservation area has no animals
b. people live, farm and use resources inside a conservation area under a management plan; inside a national park, settlement and grazing are forbidden
c. a conservation area is always smaller
d. only foreigners may enter a conservation area

v. Gharial eggs are collected from river banks and hatched at Kasara, and the young are raised for a few years before being released into the Narayani. This is: [1]

a. in-situ conservation, because Kasara is beside Chitwan National Park

b. ex-situ conservation, because the young are raised away from their natural habitat

c. cryopreservation

d. a seed bank

4 Very short answers [3]

Write very short answers to the following questions.

a. Which animal was Koshi Tappu Wildlife Reserve set up to protect? [1]

b. Name the smallest protected area of Nepal and the animal it protects. [1]

c. Why is a crop of one genetically uniform variety at more risk than a field of mixed local varieties? [1]

5 Short answers [9]

Write short answers to the following questions.

a. What are the two tests a region must pass to be a biodiversity hotspot? In which hotspot does Nepal lie? [2]

b. A forest is cut down to one tenth of its area. Using S = cA^0.25, about what share of its species can it keep in the long run? Show your working. [2]

c. Why does Nepal hold about 9.5% of the world's known bird species but only about 1.9% of its reptiles? [2]

d. Write any three major causes of the loss of biodiversity in Nepal, with an example of each. **[3]**

6 Long answers **[8]**

Write long answers to the following questions.

a. Why is biodiversity important? List the reasons. **[4]**

b. Discuss the significance of wetlands in sustaining life and ecosystems, highlighting their benefits and importance for biodiversity conservation. **[4]**

7 Think [3]

In Dhorpatan, foreign hunters pay high fees to shoot a few blue sheep each year. How can allowing some animals to be shot help the species survive?

8 Activity: A wetland in a tray (not marked)

Do the activity in the unit and fill in the table.

Tray	How fast the water runs off	How muddy the water at the bottom is
no sponge		
a dry sponge		
a half-soaked sponge		

Which two benefits of a wetland does this show?