Unit 31 · Wildlife

ANSWER KEY · FOR TEACHERS

Full marks 35

Give the marks for the points in the marking scheme; an answer in other words that says the same is right.

1 Key words

1. wildlife
2. extinct
3. poaching
4. 1964
5. threatened
6. Evaluated
7. CITES
8. diclofenac

K · 4

Each carries 0.5 mark.

2 Label the diagram

1. Vulnerable
2. Data Deficient
3. Critically Endangered
4. Endangered
5. Near Threatened
6. Least Concern

K · 3

Each carries 0.5 mark.

3 Multiple choice

i. **b.** Critically Endangered, Endangered and Vulnerable — K · 1

CR, EN and VU are the threatened categories, at extremely high, very high and high risk. Extinct species are past threat; Near Threatened and Least Concern are not (yet) threatened; DD and NE mean the risk is unknown.

ii. **b.** to provide information about the conservation status of species — K · 1

The Red List assesses how close each species is to **extinction**. Regulating the wildlife trade is the work of **CITES**, which uses the Red List's information but is a separate treaty.

iii. **c.** golden monitor lizard — U · 1

The three protected reptiles are the **golden monitor lizard**, the gharial and the Asian rock python. The mugger, the king cobra and the common Bengal monitor are not on the list, though international trade in all three is controlled under CITES.

iv. **b.** so that a decline is noticed early, while there are still enough animals to save — U · 1

A species can be lost before anyone notices if no one counts it. Regular counts show which way each population is going, and whether protection is working: the rise of Nepal's tigers and rhinos is known only because they are counted. The Red List (10.2.2) uses exactly such counts.

v. **d.** Critically Endangered — A · 1

Criterion A looks at the **speed of decline**, not the number left. A fall of 80% or more over 10 years or three generations, with the cause still at work, is **Critically Endangered** (A2). 4,000 animals left after losing 85% means there were about 27,000: at that rate, the species could be gone within a few more generations.

4 Very short answers

a. MARKING SCHEME — K · 1

✓ 27 mammals, 9 birds, 3 reptiles.

b. MARKING SCHEME — K · 1

✓ Gland, Switzerland.

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c. MARKING SCHEME U · 1

✓ It disperses the seeds of forest trees.

5 Short answers

a. MARKING SCHEME U · 2

✓ EX: the last individual has died; it can't be brought back.

✓ EW: it survives only in captivity or cultivation; it could be returned to the wild.

b. MARKING SCHEME U · 2

✓ Wild relatives carry useful genes (resistance to disease, drought, pests).

✓ Crossing with them gives high-yielding, resistant varieties, e.g. rice; or pollination and pest control.

c. MARKING SCHEME A · 2

✓ Criterion B (a small range, under 100 km^2, shrinking).

✓ Any one criterion is enough; one event could wipe out a species in so small an area.

d. MARKING SCHEME U · 3

✓ Any one cause with an example.

✓ A second.

✓ A third.

6 Long answers

a. ANSWER U · 4

The **IUCN Red List** (begun 1964) is the world's most complete record of the conservation status of species. Its significance:

1. It tells us **how close each species is to extinction**, in nine categories (EX, EW, CR, EN, VU, NT, LC, DD, NE), by the same measured criteria for every species.
2. It **raises awareness** of how much biodiversity is threatened.
3. It shows **which species need help first**, guiding conservation plans and spending.
4. Repeated over the years, it shows **whether species are recovering or declining**, so it measures whether conservation works.
5. It gives information for laws and global agreements such as the **Convention on Biological Diversity** and **CITES**.

MARKING SCHEME

✓ It records how close each species is to extinction, in nine categories, by the same criteria.

✓ It raises awareness and shows which species need help first.

✓ Repeated over the years, it shows whether conservation works.

✓ It informs laws and agreements such as the CBD and CITES.

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b. ANSWER U · 4

At the UN Earth Summit in Rio de Janeiro (1992), where the Convention on Biological Diversity was opened for signature, and in the Global Biodiversity Strategy published that year, scientists from many countries agreed on these components:

1. **Study wildlife habitats**, especially the critical feeding, breeding, nursery and resting areas.
2. **Protect these habitats**, setting up new protected areas suited to the animals' needs.
3. **Keep accurate census data** on the wild animals of each area, counted at least once every five years.
4. **Make international agreements** to protect the habitats of migratory species that range widely.
5. **Enforce laws strictly** against the international wildlife trade and hunting for pleasure.
6. **Preserve wild varieties** needed for genetic engineering and biotechnology.
7. **Establish national parks and wildlife reserves** to conserve natural habitats.
8. **Educate people** about the use and importance of wildlife.

MARKING SCHEME

✓ Study and protect the critical habitats; new protected areas, national parks and reserves.
✓ Count the wild animals at least every five years.
✓ International agreements for migratory species; strict laws against trade and hunting.
✓ Preserve wild varieties; educate people.

7 Think

ANSWER HA · 3

No. The Red List judges the risk to the **whole species across its world range**: the monal lives along the Himalaya from Afghanistan to Myanmar and isn't declining fast enough to be threatened. **Protection** is a country's **law**: Nepal protects species that are rare or at risk **within Nepal**, or that it values, such as its national bird, and protecting them early keeps them from becoming threatened.

MARKING SCHEME

✓ The Red List judges the risk to the species across the whole world.
✓ Protection is Nepal's law, for what is rare or valued in Nepal.
✓ So the two can differ; protection keeps a species from becoming threatened.

8 Activity: Exploring endangered wildlife in Nepal

(not marked)

WHAT STUDENTS SHOULD FIND

For example, the red panda: the cool forests of the high hills, with a bamboo understory; threats are forest loss and fragmentation, poaching for its fur and the pet trade, and dogs; Endangered on the Red List, falling; protected areas such as Langtang and Kanchenjunga, and local people trained to watch over it. Yes, it is one of Nepal's 27 protected mammals.

Marks by level	Knowledge	Understanding	Application	Higher ability	Total
Marks	11	18	3	3	**35**

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