



Unit 4 • Classification of Living Beings: animals

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. vertebrates
2. gills
3. streamlined
4. amphibians
5. reptiles
6. feathers
7. mammals

K • 3.5

Each carries 0.5 mark.

2 Label the diagram

- | | |
|--------------------|---------|
| 1. beak (no teeth) | 4. wing |
| 2. neck | 5. legs |
| 3. feathers | 6. tail |

K • 3

Each carries 0.5 mark.

3 Multiple choice

- i. c. bat

K • 1

A bat is a mammal. It gives birth and feeds its babies milk. Toads, crows and lizards lay eggs.

- ii. b. snake

K • 1

A snake is a reptile, with dry, hard scales. A rohu's scales are wet and slimy. A seahorse is a fish with bony plates. A rhinoceros is a mammal with thick skin.

- iii. d. frog

U • 1

A frog's head joins its trunk directly. It has no neck, so it can't turn its head.

- iv. c. pigeon

U • 1

A pigeon is a bird. Birds have a beak, but no teeth.

- v. d. webbed feet

A • 1

Webbed feet push the water back like oars. (Its long back legs kick, but it is the webbed feet that push on the water. Light bones and air sacs belong to birds.)

4 Correct or wrong?

MARKING SCHEME

U • 4

- ✓ i. Wrong, X (they are amphibians).
- ✓ ii. Correct, ✓ (all reptiles breathe with lungs).
- ✓ iii. Wrong, X (feathers; mammals have hair).
- ✓ iv. Correct, ✓.



5 Body coverings

1. soft, moist skin → f. frog
2. scales → c. rohu fish
3. hair → e. cat
4. dry, hard scales → a. tortoise
5. feathers → d. danphe

K • 2.5

Each carries 0.5 mark.

6 Very short answers

a. MARKING SCHEME

K • 1

- ✓ The danphe (Himalayan monal).

b. MARKING SCHEME

K • 1

- ✓ A tadpole.

7 Short answers

a. MARKING SCHEME

U • 2

- ✓ With gills when it is a young tadpole in the water.
- ✓ With lungs when it is a grown frog on land (its moist skin helps too).

b. MARKING SCHEME

A • 2

- ✓ Its body is covered with dry, hard scales and it breathes with lungs.
- ✓ It lays eggs on land, with a tough shell (and has a backbone); having no legs doesn't move it to another group.

8 Think

MARKING SCHEME

HA • 2

- ✓ It breathes air with lungs, not gills.
- ✓ It gives birth to babies and feeds them milk (a fish lays eggs).

9 Activity: What is it like? (Project 4.2)

(not marked)

WHAT STUDENTS SHOULD FIND

For example: rohu, scales, fins and tail, gills, fish; frog, moist skin, legs and webbed feet, skin and lungs (gills as a tadpole), amphibian; house lizard, dry scales, legs, lungs, reptile; crow, feathers, wings and legs, lungs, bird; goat, hair, legs, lungs, mammal.

Marks by level	Knowledge	Understanding	Application	Higher ability	Total
Marks	13	8	3	2	26





Unit 4 • Classification of Living Beings: plants

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. root system
2. node
3. petiole
4. transpiration
5. pollen
6. cotyledons

K • 3

Each carries 0.5 mark.

2 Label the diagram

- | | |
|-------------------------|--------------------|
| 1. corolla (petals) | 4. thalamus |
| 2. androecium (stamens) | 5. pedicel (stalk) |
| 3. calyx (sepals) | 6. gynoecium: |

K • 3

Each carries 0.5 mark.

3 Multiple choice

- i. b. petals

K • 1

The colorful corolla is made of petals.

- ii. b. 4

K • 1

Four: calyx, corolla, androecium and gynoecium.

- iii. c. barley and paddy

U • 1

Barley and paddy are both monocots, with parallel veins. Bean, gram and soybean are dicots, with net veins.

- iv. d. making food in sunlight

U • 1

Roots grow in the dark soil. They can't make food. That is the leaves' job. Roots hold the plant, take in water and minerals, and some store food.

- v. c. R

A • 1

R has every dicot clue: a tap root, a solid stem, net veins and two cotyledons. Q is a monocot. P and S mix the clues, so they fit neither group.

4 Correct or wrong?

MARKING SCHEME

U • 4

- ✓ i. Correct, ✓ (the petiole is the leaf's stalk).
- ✓ ii. Correct, ✓ (its seed has one cotyledon).
- ✓ iii. Wrong, X (wheat straw is hollow).
- ✓ iv. Correct, ✓ (the calyx, of green sepals, is the outermost part).



5 Monocot or dicot?

1. fibrous roots
2. tap root
3. parallel veins
4. net veins
5. one cotyledon
6. two cotyledons

Each carries 0.5 mark.

U • 3

6 Short answers

a. MARKING SCHEME

- ✓ Any one, e.g. they hold the plant firmly in the soil.
- ✓ Any second, e.g. they take in water and minerals; some store food (radish, carrot).

K • 2

b. MARKING SCHEME

- ✓ Any one reason, e.g. its seed has two cotyledons (a soaked gram splits in two).
- ✓ Any second reason, e.g. its leaves have a net of veins; it has a tap root; its stem is solid.

U • 2

c. MARKING SCHEME

- ✓ The leaf is where the plant makes its food: its chlorophyll catches sunlight.
- ✓ It makes food from water and carbon dioxide, and the food goes to every part of the plant.

U • 2

7 Think

ANSWER

No. Most petals are not green. They have no chlorophyll, so they can't make food from sunlight. A plant makes its food mainly in its green leaves.

MARKING SCHEME

- ✓ No.
- ✓ Most petals are not green; they have no chlorophyll to catch sunlight (food is made mainly in green leaves).

HA • 2

8 Activity: One seed leaf or two? (Activity 4.15)

(not marked)

WHAT STUDENTS SHOULD FIND

Gram and pea slip out of their covers and split into two halves: dicots, with two cotyledons. Maize and wheat keep their covers and don't split: monocots, with one cotyledon.

Marks by level	Knowledge	Understanding	Application	Higher ability	Total
Marks	10	13	1	2	26

