

NAME: _____

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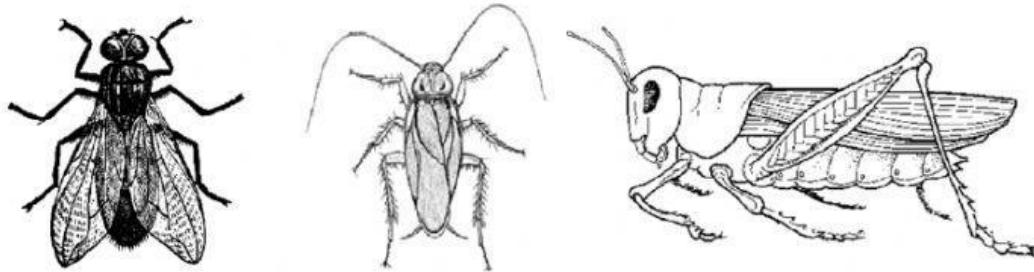
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CLASSIFICATION and CHARACTERISTICS OF LIVING ORGANISMS

Complete the following questions.

1. Animals with backbones are called _____ . They can be divided into 5 groups: fish, _____ , reptiles, _____ and mammals. Animals without backbones are called _____. One of the largest groups of invertebrates is the _____ or jointed-legged animals. This group can be divided up into 4 smaller groups: crustaceans, _____ insects and _____. The plant kingdom can be divided up into 5 smaller groups: algae, mosses and liverworts, _____ , flowering plants and _____. The other 3 kingdoms are the _____ protists and _____ of which the mushroom is an example. [11 marks]

2. Look at the animals below.



A

B

C

a. Give 3 features which all 3 animals have in common and which you can see in the diagram.

[3]

b. B transfer quite a lot of germs when it crawls in germ-filled areas and then on food that we eat. Suggest one feature in diagram B which accounts for it carrying so much germs from place to place and state how the feature makes B hazardous to our health.

[2]

3. Read the descriptions and decide to which classification group each one refers. [6 marks]

a. Lay eggs with a shell on land and have wings and feathers but no teeth. _____

b. Body divided into three parts. Have 6 legs and 2 pairs of wings. _____

c. Have thin leaves and live in damp places. Reproduce using spores. _____

d. Have no segments, soft bodies and some have a shell. _____

e. Do not have chlorophyll. Have a body made of thin threads called hyphae. Grow from spores. _____

f. Are warm-blooded. Have hair and females make milk to feed their young. _____

4. Decide, on the basis of their structure, which is the odd one out of the following and write it on the line. [10 marks]

a. Rose, jellyfish, grass, tulip _____

b. Camel, snake, eagle, tapeworm _____

c. Snail, locust, spider, centipede _____

d. Mould, toadstool, seaweed, mushroom _____

e. Frog, newt, toad, lizard _____

f. Crab, seahorse, lobster, shrimp _____

g. Salmon, dolphin, mackerel, shark _____

h. Spider, fly, cockroach, grasshopper _____

i. *Amoeba, Paramecium, Rotifer, Tubercl bacillus* _____

j. Hibiscus, Rose, Poinsettia, Coconut _____

5. Define the following terms.

[2marks]

a. Reproduction _____

b. Growth _____

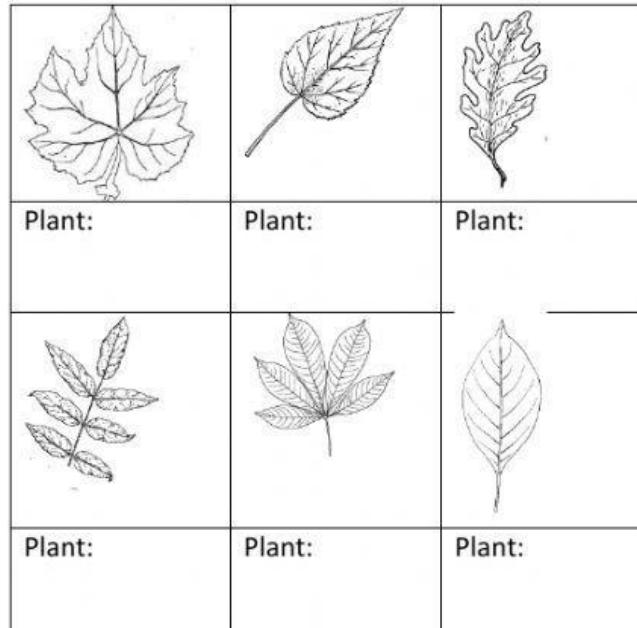
6. Below are statements about the characteristics of living organisms. Although there may be more than one response for each statement, on the lines provided write ONE characteristic of life that correctly matches each statement. [12 marks]

- i. A cockroach hides when the lights come on. _____
- ii. A cherry seed produces a cherry tree. _____
- iii. A bird darts from flower to flower. _____
- iv. Pigs mate and produce piglets _____
- v. You are answering these questions. _____
- vi. A person breathes out carbon dioxide. _____
- vii. A green plant grows in the direction of sunlight. _____
- viii. A horse eats grass. _____
- ix. A cherry tree produces cherries and cherry seeds. _____
- x. Stopping at a red light. _____
- xi. Hens lay eggs. _____
- xii. An embryo becomes a baby. _____

7. A dichotomous key is a tool used to assist in identifying things (in these case organisms) by giving a number of choices that lead the user to positive identifications. Use the dichotomous key below to help identify the following organisms. [6 marks]

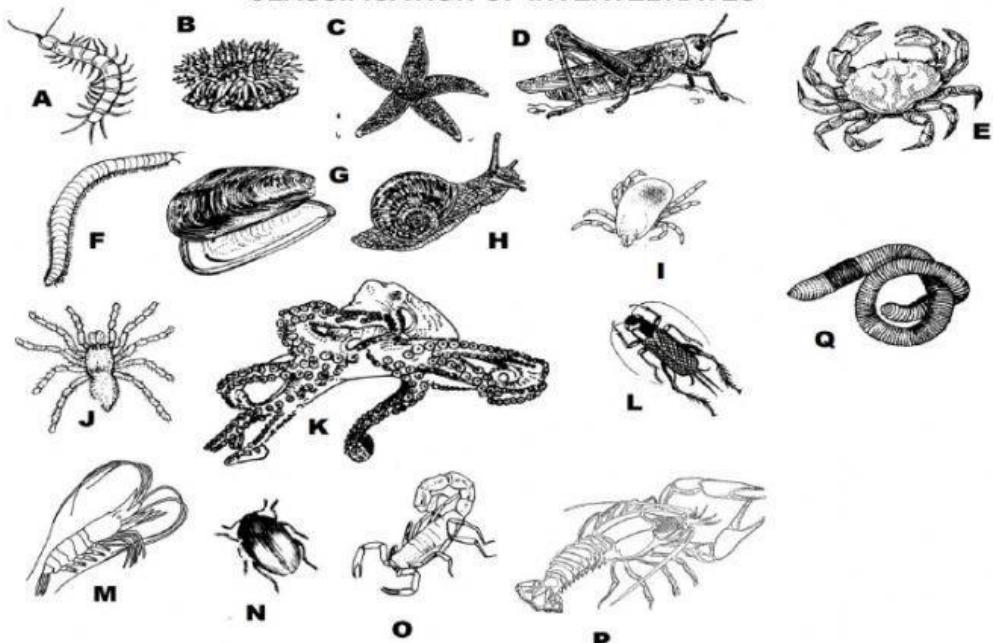
Use the dichotomous key below to help identify the following leaves in a botanical collection.

I	Simple leaves (not divided into leaflets)	<u>Go to II</u>
	Compound leaves (divided into leaflets)	<u>Go to V</u>
II	Leaf divided into five lobes	<u>GRAPE</u>
	Leaf not divided into five lobes	<u>Go to III</u>
III	Margin of leaf smooth	<u>BUTTON-BUSH</u>
	Margin of leaf not smooth	<u>Go to IV</u>
IV	Margin of leaf serrated (jagged)	<u>HIBISCUS</u>
	Margin of leaf with rounded lobes	<u>BREADFRUIT</u>
V	Leaflets arranged like fingers on a hand	<u>KAPOK</u>
	Leaflets in pairs on leaf axis (pinnate)	<u>WISTERIA</u>



8. Study the following groups of invertebrates and answer the questions below. **Do not name the organisms**, but use the **LETTERS** where applicable. [25 marks]

CLASSIFICATION OF INVERTEBRATES



a. Complete the following hierarchy of living organisms:

KINGDOM, _____, CLASS, _____, FAMILY _____, SPECIES _____

b. To what **DOMAIN** do all these organisms belong? _____

c. To what **KINGDOM** do all these organisms belong? _____

d. Write the letter of the organism /s from the **Phyla** named below:

Echinoderm _____

Mollusc (3) _____

Annelid (ringed-worm) _____

Coelenterate _____

e. i. To what phylum do the following organisms belong: A and J. _____

e. ii. List the other 9 organisms that belong to this phylum: _____

f. To which **CLASSES** do the following belong:

A _____ D _____ E _____ J _____

