

4 Grouping of living things

4.1 Characteristics of living things

- 1 Choose the group which consists of all living things living in garden soil.
A Earthworms, millipedes, ants
B Cockroaches, snails, centipedes
C Termites, grasshoppers, snakes
D Spiders, frogs, caterpillars
- 2 Choose the group which consists of all living things.
A Table, ball, pen
B Seaweed, robot, cow
C Earthworm, snail, algae
D Flying saucer, shark, caterpillar
- 3 Which of the following is **not** a characteristic of all living thing ?
A They reproduce
B They respond to stimuli
C They get rid of their waste product
D They breathe through their lungs
- 4 Which of the following observations is not a characteristic of all living things?
A They can grow
B They require oxygen
C They are sensitive to the surroundings
D They can make food using light
- 5 In order to live, all living things must have the following **except**
A oxygen B food C water D moonlight
- 6 Ali placed some vinegar in the path of a moving snail. How would the snail respond?
A It does not move
B It keeps on moving
C It moves away quickly
D It moves round and round
- 7 Which of the following statements does **not** describe growth in living things?
A A caterpillar becomes a pupa and then a butterfly
B A tadpole becomes a frog
C A seedling becomes a mature plant with flowers
D Some crystals grow in size when placed in a saturated solution
- 8 Plants and animals need to be classified into groups and sub-groups because
A they exists in large numbers
B they exists in different sizes
C they have different characteristics
D they are all living things

4.2 (a) Diversity and classification of plant life

1 A dichotomous key divides a group into

- A two smaller groups each time
- B three smaller groups each time
- C two or more smaller groups each time
- D two smaller groups twice

2 Which one of the following groups does not have chlorophyll?

- A Algae
- B Fungi
- C Ferns
- D Mosses

3 Pines are

- A non-flowering seed plants
- B flowering seed plants
- C non-flowering seedless plants
- D flowering seedless plants

4 The pines and casuarinas trees have needle-like leaves. They reproduce by

- A seeds found in cones
- B seeds found in fruits
- C spores found in capsules
- D spores found in spore bags

5 Non-flowering seed plants produce

- A anthers
- B spores
- C cones
- D stigmas

6 Which of the following statements is not true about ferns?

- A They have roots and stems
- B They produce spores
- C They produce small coloured flowers
- D Their leaves are divided into smaller leaflets

7 Which of the following are non-flowering plants ?

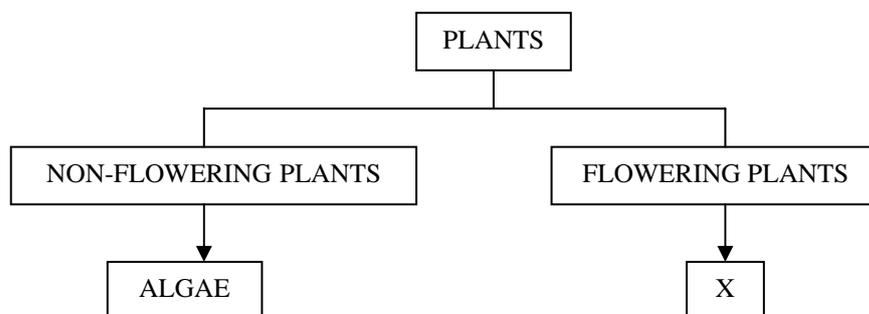
- I Ferns
- II Tapioca
- III Conifers
- IV Grass

- A I and II only
- B I and III only
- C II and III only
- D III and IV only

8 Ferns and conifers belong to a group of plants. Which group is correct ?

- A Monocotyledons
- B Dicotyledons
- C Flowering
- D Non-flowering

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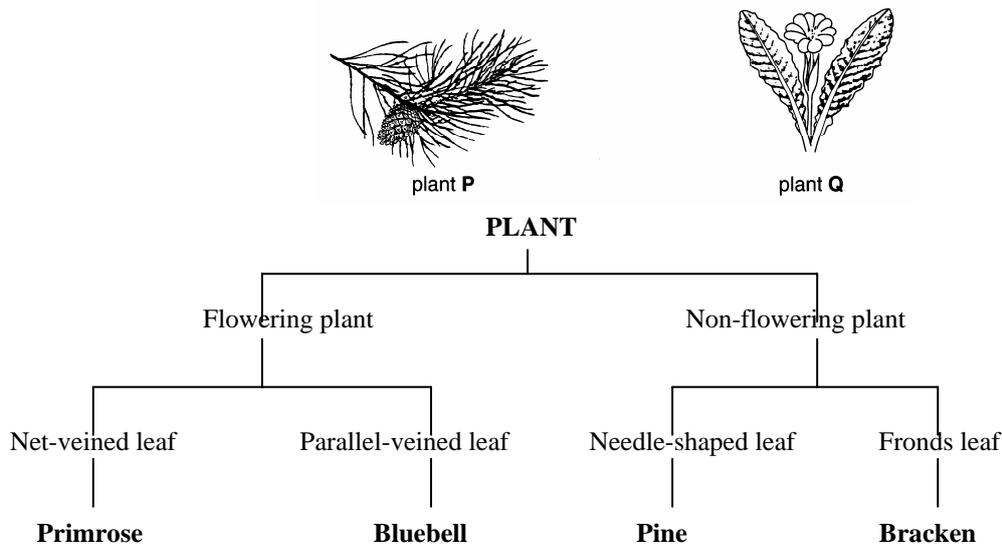


The above figure shows a classification diagram. Plant X is (BJCE97)

- A duckweed
- B fungi
- C hibiscus
- D 2^{pakis}

4.2 (a) Diversity and classification of plant life

10 Use the key in Figure to identify plants **P** and **Q** (99)



What are plant **P** and plant **Q** ?

- | | Plant P | Plant Q |
|---|----------------|----------------|
| A | Bluebell | Bracken |
| B | Bracken | Pine |
| C | Pine | Primrose |
| D | Primrose | Bluebell |

11 When we touch a mimosa plant (Daun Supan) the leaves collapse. What characteristic of living thing does the mimosa plant show? (2004)

- A All living things grow.
- B All living things move
- C All living things need energy
- D All living things respond to stimuli

4.2 (b) (i) Vertebrates

1 In which of the following is the breathing organ **not** exactly matched against the animals ?

- A Fish Gills only
- B Sparrow Lungs only
- C Tadpole Lungs only
- D Crocodiles Lungs only

2 Which of the following is/are cold-blooded animals?

- I frog II seal III fish IV crocodile

- A I only
- B I and II
- C II and III
- D I, III and IV

3 The table below shows the features present in five animals which are marked with an asterisk (*)

Animal	Hair	Feathers	Scales	Smooth skin	Legs	Teeth	Beak	Wing
1			*		*	*		
2				*	*			
3	*				*	*		
4			*			*		
5		*	*		*		*	*

What are the animals 1 and 3 ?

- A Amphibian and bird respectively
- B Reptile and fish respectively
- C Reptile and mammal respectively
- D Bird and mammal respectively

4 An example of a warm-blooded animal is

- A an earthworm B a crocodile C a frog D a bat

5 Mammals are the only animals which

- A have a backbone
- B are warm blooded
- C give birth to their young alive
- D can live in land and water

6 An animal is warm-blooded, has scales on some parts of its body, breathes through its lungs and lays eggs. It is

- A a fish B an amphibian C a reptile D a bird

7 A rat is classified as a mammal because

- I It has hair on its body
- II It is cold blooded
- III It has mammary glands
- IV It has lungs

- A I and III only
- B I, II and IV only
- C I, III and IV only
- D II, III and IV only

8 Which animal is a mammal ? (98)

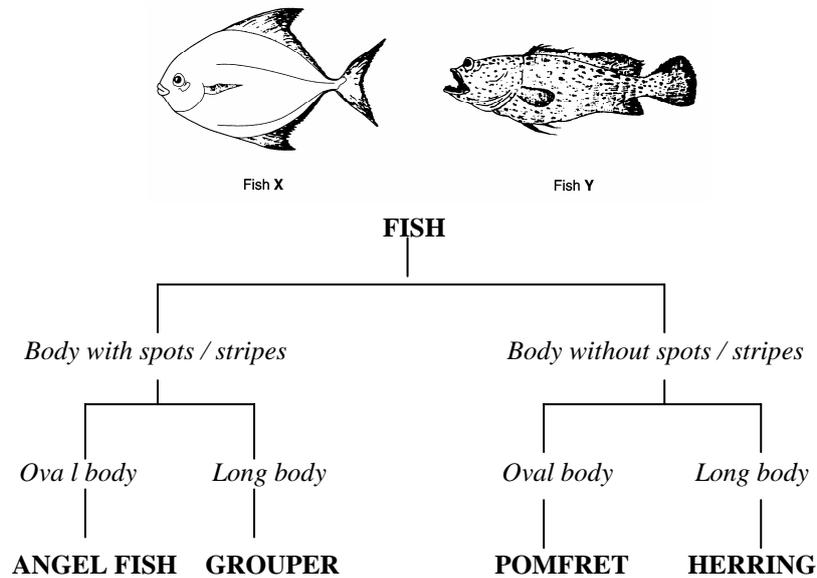
- A Duck B Seal C Shark D Tortoise

9 All of the following lay eggs **except** the

- A cobra B dolphin C eagle D ⁴ ikan merah

4.2 (b) (i) Vertebrates

18 Use the key in the figure to identify fishes X and Y (98)



What are fish X and fish Y ?

- | | |
|--------------|---------|
| Fish X | Fish Y |
| A Angel Fish | Pomfret |
| B Grouper | Pomfret |
| C Pomfret | Grouper |
| D Pomfret | Herring |

19 Table shows some of the characteristic of animals X, Y and Z (2005)

animal	characteristic
X	warm-blooded, has mammary glands and give birth to its young
Y	cold-blooded, breathes through lungs and has leathery skin
Z	cold-blooded, breathes through lungs and has moist skin

What animals are X, Y and Z?

- | | | |
|----------|----------|----------|
| X | Y | Z |
| A frog | lizard | monkey |
| B lizard | monkey | frog |
| C monkey | frog | lizard |
| D monkey | lizard | frog |

20 How do reptiles differ from all other types of vertebrates?

- A They are cold-blooded
- B They breathe through lungs
- C They have a dry skin covered with scales
- D They live both on land and in water

4.2 (b) (ii) Invertebrates

10 Study the classification key shown in the figure carefully.

ARTHROPODS

INSECTS	ARACHNIDS	CRUSTACEANS	MYRIAPODS
W	X	Y	Z

Which of the following represents **W**, **X**, **Y** and **Z**?

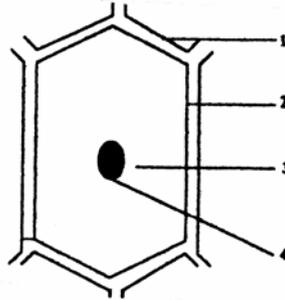
W	X	Y	Z
A cockroach	spider	prawn	millipede
B millipede	prawn	spider	cockroach
C prawn	millipede	cockroach	spider
D spider	cockroach	millipede	prawn

11 Which of the following invertebrate is not an arthropod?

- A a centipede
- B a cockroach
- C a leech
- D a scorpion

4.3 (a) Cells

- 1 A cell in the human body having no nucleus is
 A nerve cell B muscle cell C white blood cell D red blood cell
- 2 All activities in the cell are controlled by the
 A cell wall B chloroplast C cytoplasm D nucleus
- 3 In plant cells, there is usually only one
 A starch grain B chromosome C chloroplast D vacuole
- 4 Figure shows a plant cell. The part marked by number 3 is



- A nucleus B chloroplast C vacuole D cytoplasm
- 5 What is the cell wall of a plant made of ?
 A Cellulose B Chloroplast C Glucose D Cell sap
- 6 Cell sap is a liquid containing
 A sugar and salt B chloroplast C starch D cytoplasm
- 7 The cell membrane is partially permeable. This means that
 A only certain types of materials are allowed to move in and out the cell
 B only water is allowed to move in and out the cell
 C only salt is allowed to move into the cell
 D only food is allowed to move into the cell
- 8 Which of the following is **not** a characteristic of an animal cell ?
 A Each cell is irregular in shape
 B Each cell is enclosed in a cell membrane
 C There is less dense part of protoplasm called cytoplasm
 D There are clear spaces inside the cell called vacuoles
- 9 Which of the following is **not** found in the cheek cell ?
 A Cytoplasm B Chloroplast C Cell membrane D Nucleus

18 Which of the following cells are found in a plant? (2004)

- A guard cells, nerve cells and phloem cells
- B guard cells, xylem cells and phloem cells
- C nerve cells, xylem cells and guard cells
- D red blood cells, xylem cells and phloem cells

19 Figure shows a diagram of a plant cell.

(diagram)

Which part of the plant cell shown in the figure above is **not** present in animal cells?

Answer: C (the cell wall)

4.3 (b) Tissues

- 1 Which of the following types of tissue carry messages from one part of the body to another?
A Connective tissue B Epithelial tissue C Muscle tissue D Nerve tissue
- 2 What is the action when muscle tissues in the body contract and relax?
A circulation B movement C digestion D absorption
- 3 Which of the following is not an example of a tissue ?
A The epithelial B The muscle C The nerve D The heart
- 4 Which of the following examples is a fluid tissue?
A The nerve tissue B The blood tissue C The epidermal tissue D The muscle tissue
- 5 In division of labour among cells, each type of cell must perform well in function.
A one B two C at least three D all
- 6 A group of cells of similar structure doing the same type of work is called
A an organ B an organism C a tissue D a system
- 7 Which type of tissue in plants makes food?
A Photosynthetic tissue C Supporting tissue
B Epidermal tissue D Epithelial tissue
- 8 Which tissue prevents a plant from drying up?
A epidermal B epithelial C muscle D photosynthetic
- 9 What is the type of tissue found in the stem of a plant that helps it to stand upright ?
A vascular tissue B epithelial tissue C epidermal tissue D supporting tissue
- 10 The surface of the human skin is covered by a layer of
A epithelial tissue B epidermal tissue C connective tissue D muscular tissue
- 11 Which of the following is not an animal tissue?
A Muscle tissue B Epidermal tissue C Epithelial tissue D blood tissue

4.3 (c) Organs and systems

1 Lungs are classified as

- A cells B organs C tissue D a system

2 Several tissues work together to form

- A a plant cell B an organ C a system D an animal cell

3 Which of the following organs does not have muscle tissues?

- A Bones B Heart C Lungs D Intestines

4 Which of the following statements are true of an animal organ?

- I An organ is made up of different types of tissues
 II An organ is made up of connective tissues
 III An organ is responsible for carrying out one or more functions

- A I only B II only C I and III only D II and III only

5 Which of the following is an example of an organ ? (2000IS)

- A Blood B Central nervous system C Heart D White blood cell

6 The respiratory system is made up of the

- A mouth, trachea, lungs C nose, gullet, lungs
 B nose, stomach, lungs D nose, trachea, lungs

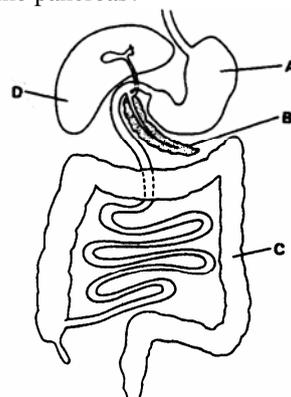
7 Which system is responsible for breaking up food and absorbing nutrients into the body?

- A Digestive B Respiratory C circulatory D excretory

8 Which of the following organs are part of the digestive system?

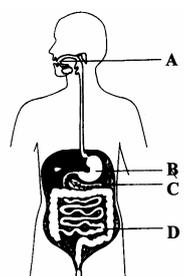
- A mouth, heart and intestines C stomach, lungs and intestines
 B gullet, stomach and intestines D nose, trachea and lungs

9 Which labeled organ on the diagram is the pancreas?



Answer : B

10 The diagram shows the human alimentary canal. In which organ are food substances digested after entering through the mouth ?



Answer : B