



Conquesta 2019

(International Multiple Choice Primary School Olympiads – Est. 1998)
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Natural Sciences – Grade 9

Welcome to your Conquesta Olympiad. When you have decided which of the answers is correct, scratch out the letter in the matching square on your answer sheet. Example:- If the answer to question 4 is c, then scratch out the letter c in the square containing c next to the number 4 (see example 1 below). If you've made a mistake and b should have been the answer, neatly cross out the mistake and then scratch out b (see example 2 below).

Example 1:-

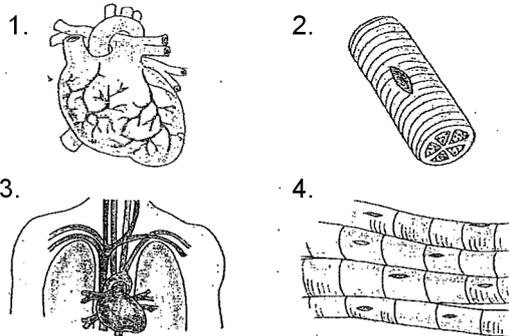
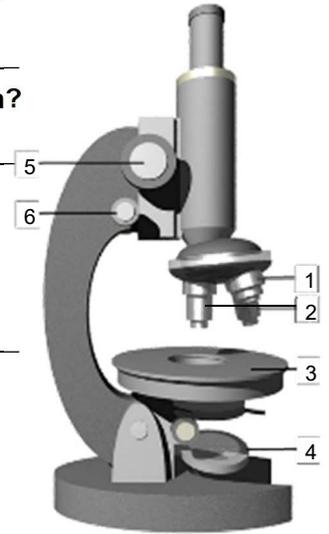
4.	a	b	c	d
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Example 2:-

4.	a	b	c	d
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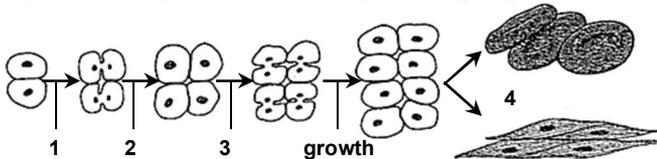
Question 1, 2 and 3 refer to the diagram of a light microscope on the right.

- Which numbers are used when focusing on an object with the highest magnification?
 (a) 1 and 4. (b) 1 and 6. (c) 3 and 5. (d) 2 and 6.
- If the eyepiece contains a lens with a magnification of x15, and parts 1 and 2 give a magnification of x40 and x10 respectively, then the levels of magnification possible with the microscope are
 (a) x600 and x150. (b) x25 and x55.
 (c) x15 and x50. (d) x400 and x600.
- The correct sequence in which light rays travel in the microscope is
 (a) eyepiece → objective lens → condenser → mirror
 (b) mirror → condenser → objective lens → eyepiece
 (c) objective lens → condenser → mirror → eyepiece
 (d) condenser → objective lens → eyepiece → mirror



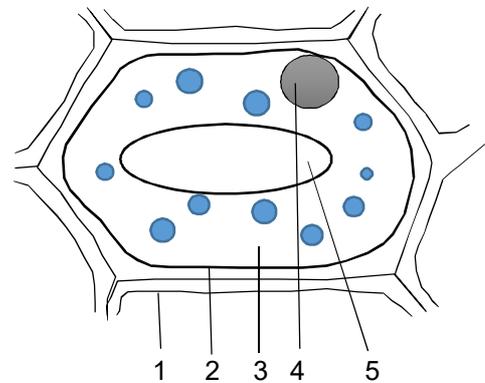
- The correct order of increasing complexity, of the above structures in a human, is
 (a) 1, 2, 3, 4. (b) 2, 1, 3, 4.
 (c) 1, 3, 4, 2. (d) 2, 4, 1, 3.

Questions 5 and 6 refer to the diagram below which represents a process occurring in living organisms.



- Which of the numbered parts indicate the process of cell division?
 (a) 1, 2 and 4. (b) 1, 2 and 3.
 (c) 2, 3 and 4. (d) 1 and 4.
- Which of the numbered parts represents specialisation?
 (a) 1. (b) 2. (c) 3. (d) 4.

Questions 7 and 8 refer to the plant cell diagram below.



- It controls the movement of substances into and out of the cell.
- It stores water and dissolved food.
- The part that controls all vital activities of cells.

- Choose the correct row (a) – (d) in the table that represents the functions (i), (ii) and (iii) associated with the numbered parts.

	(i)	(ii)	(iii)
(a)	2	4	5
(b)	1	2	4
(c)	2	5	4
(d)	5	2	3

- Which parts of the plant cell above are also present in animal cells in the same proportions?
 (a) 1, 2 and 5. (b) 2, 3 and 4.
 (c) 1, 3 and 5. (d) 1, 2 and 4.