

SANGAM SKM COLLEGE - NADI
YEAR 11 BIOLOGY
WORKSHEET – WEEK 2

Question 1

Match the terms with their correct descriptions by writing the letters beside the names.


| | | |
|--------------------|----------|---|
| atom | A | Atoms that are chemically bonded together |
| cell | B | A body part made of tissues that together perform a similar function |
| organ | C | All of the populations of living things in an area |
| population | D | The smallest unit of an element; made of protons, neutrons and electrons |
| Organ system | E | The basic organizational unit of all living things |
| biome | F | Organs that work together for a common purpose |
| molecule | G | A well defined structure within a cell that performs a specific function |
| tissue | H | A group of interbreeding organisms living in the same area |
| Organism | I | An individual living thing capable of reproduction |
| Cellular organelle | J | A grouping of similar cells with a specific function |
| biosphere | K | A community and all of the physical characteristics of its environment; all of the living and nonliving things in an area |
| community | L | All of the ecosystems with similar climates |
| ecosystem | M | All of the living things present on, above or in the earth |

Question 2

- a) State two rules for the correct use and handling of microscopes.
- b) List **four** steps used to view a slide under the microscope at high power?

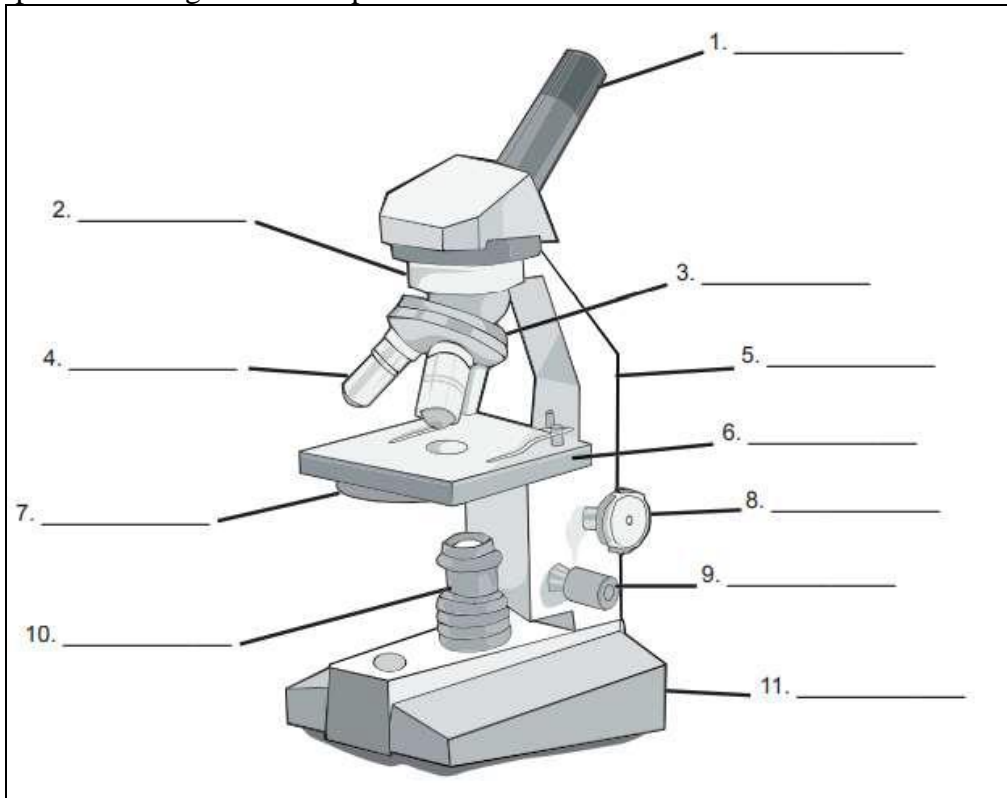
Question 3

- a) What does resolution mean?
- b) Given below is a diagram, complete the diagram showing resolution.

| | |
|---|--|
| Letter 'e' on a piece of paper | Letter 'e' as seen under the microscope. |
|  | |

Question 4

Label the parts of the light microscope below:

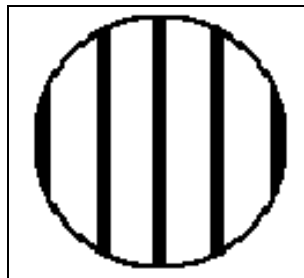


Question 5

a) Which of the following sets of lenses on a microscope would show the greatest number of cells when used to view the same tissue?

| | Objective Lens | Eye Piece Lens |
|----|----------------|----------------|
| A. | 10x | 5x |
| B. | 20x | 10x |
| C. | 40x | 5x |
| D. | 40x | 10x |

b) The diagram given below is of a millimeter ruler placed under 10x eyepiece lens and 4x objective lens.



- i. Calculate the total magnification of the microscope.
- ii. What is the diameter of the field of view in millimeters?
- iii. If 16 cells were seen across the diameter of field of view, calculate the size of one cell.