

EXAMPLE EXAMINATION

Biology

1. Cell respiration is a process that takes place in:

- a. El nucleus.
- b. The mitochondria.
- c. The ribosomes.
- d. The lysosomes.

2. Prokaryotic cells lack:

- a. Double-stranded DNA.
- b. RNA.
- c. Centrioles.
- d. Plasma membrane.

3. Which of the following kinds of cells synthesize myelin?:

- a. Schwann cells.
- b. Neurons.
- c. Platelets.
- d. Myelocytes.

Chemistry

1. Starting with a 4 M solution of NaCl, you want to prepare 2 L of a 0.1 M solution of NaCl. How much of the concentrated solution should you use?:

- a. 40 mL.
- b. 50 mL.
- c. 66.7 mL.
- d. 100 mL.

2. The geometry of a water molecule is:

- a. Rectangular.
- b. Tetrahedral.
- c. Angular.
- d. Linear.

3. The elements in period table are arranged by increasing order of:

- a. Atomic mass.
- b. Atomic number.
- c. Molecular weight.
- d. Molecular radius.

Mathematics

1. Which of the following lines is parallel to the line: $\frac{x-1}{2} = \frac{y-2}{-4}$

- a. $2x+4y-8=0$
- b. $4x+2y-8=0$
- c. $4x-2y-8=0$
- d. None.

2. Find the derivative of the function $y=\cos^2x$ in $x=0$:

- a. 1.
- b. 2
- c. 0
- d. None.

3. What is the inflection point of the function $y=2x^3-6x^2+5$?:

- a. (-1,-3).
- b. (1,0).
- c. (1,1).
- d. None.