

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.