

CHG sample questions, 2023

Please note that all test-takers will also have to take a trial online test to be familiar with the online test system, and compatibility of their laptop / desktop. The following are sample questions only.

Biology (40% of questions):

1. Bacteria use restriction enzymes to
 - a) destroy foreign protein
 - b) restrict protein-enzymes
 - c) synthesize and recombine DNA
 - d) destroy foreign DNA
2. Which of the following amino acids is basic in nature?
 - a) glycine
 - b) aspartate
 - c) glutamate
 - d) lysine
3. Among the following which process do NOT occur in nucleus?
 - a) replication
 - b) transcription
 - c) translation
 - d) DNA repair
4. The process of generating glycogen from glucose is called
 - a) glycolysis
 - b) glyco-forming
 - c) glycogenesis
 - d) glucose catabolism

Maths and aptitude (25% of questions):

1. If $3x - 2 = 7$, then $4x = ?$

(a) 3 (b) 5 (c) 9 (d) 12

2. Which of the following is equal to $\frac{1}{4}$ of 0.01 percent

(a) 0.25 (b) 0.000025 (c) 0.0025 (d) 0.025

3. A farmer has two rectangular fields. The larger field has twice the length and 4 times the width of the smaller field. If the smaller field has area K , then the area of the larger field is greater than the area of the smaller field by what amount?

(A) $2K$ (B) $6K$ (C) $8K$ (D) $12K$

Chemistry (15% of questions):

1. NaCl and H₂O are examples of

- a) polar solute and polar solvent
- b) non-polar solute and polar solvent
- c) polar solute and non-polar solvent
- d) non-polar solute and non-polar solvent

2. The rows of the periodic table are usually referred to as,

- a) periods
- b) periodicities
- c) elementary lines
- d) fields

Physics (15% of questions):

1. Which experiences the least electrical force in an electric field?

- a) Electron
- b) Beta particle
- c) Gamma ray
- d) Alpha particle

2. A small sports car collides head-on with a massive truck. Which vehicle experiences the greater magnitude force during collision?

- a) The car
- b) The truck
- c) The answer depends on the speeds the vehicles were moving.
- d) Both experience the same force during the collision.

English (5% of questions):

1. The person's zeal ----- study calls attention ----- his caliber.

- a) to / of
- b) for / to
- c) with / of
- d) for / of