

Sample questions (Biology, Chemistry, Physics) - General Medicine

Biology

1. Lymph:
 - a. **originates from a part of the tissue fluid and flows into the bloodstream**
 - b. circulates in a closed lymph system
 - c. is produced by the filtration of blood plasma in the lymph nodes
 - d. occupies about 10-15% of body weight
2. Hemophilia (hereditary bleeding) occurs:
 - a. more often in women
 - b. equally often in both sexes
 - c. **more often in men**
 - d. in men whose father was affected in this way
3. The plasma membrane consists of
 - a. only proteins and sugars (carbs)
 - b. **a double layer of phospholipids and proteins**
 - c. a layer of the glycocalyx only
 - d. a single layer of phospholipids and sugars (carbs)

Chemistry

1. As the oxidation number of the atom d element increases in oxygen compounds
 - a. **strengthen acid-forming properties**
 - b. weaken the acid-forming properties
 - c. strengthen the base-forming properties
 - d. neither the acid-forming nor the base-forming properties change
2. What amount of water substance corresponds to the weight of 200 g of water
 - a. **11.0 mol**
 - b. 5.5 mol
 - c. 55 mol
 - d. 15.0 mol
3. Avogadro's constant expresses
 - a. **number of particles in 1 mol substance amount**
 - b. the number of atoms in the compound
 - c. substance concentration of ions in gases
 - d. the volume of gaseous substances at an amount of substance 1 mole

Physics

1. We observe that water boils already at fifty degrees Celsius. This phenomenon is most likely caused by
 - a. high concentration of dissolved salt
 - b. increased ambient pressure
 - c. **reduced ambient pressure**
 - d. the presence of superheated steam
2. The different "fluidity" of liquids refers to their
 - a. density
 - b. surface tension
 - c. hydrodynamic pressure
 - d. **viscosity**
3. The so-called limiting angle is always
 - a. equal to 90°
 - b. larger than 90°
 - c. **smaller than 90°**
 - d. equal to the fraction of the refractive indices of the environment at the interface at which refraction occurs.