Unit 6 - Week 4: Analytical instruments and biological responses to biomaterials

Assignment 4

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Due on: 2020-03-20, 23:59 IST.

1) Which process occurring in biofilm system has the highest time scale
   - conversion
   - Visous diffusion
   - Substrate diffusion
   - Inverse growth
   No, the answer is incorrect. Scale: 3
   Accepted Answers: Inverse growth
   1 point

2) A crystal has $a = 2$, $b = 3$ and $c = 5$. If $a = b = c = f = g = h = 1$, what is the length of the longest diagonal
   - Crystal size
   - Distance between planes
   - Distance between X-rays
   - Inverse of lattice and diffraction
   No, the answer is incorrect. Scale: 3
   Accepted Answers: Distance between planes
   1 point

3) $\theta = 30^\circ$, find $\theta$
   - Si crystal
   - Distance between planes
   - Distance between X-rays
   - Inverse of lattice and diffraction
   No, the answer is incorrect. Scale: 3
   Accepted Answers: Distance between planes
   1 point

4) When using X-ray diffraction spectroscopy for concentration of the weight of 0.11 and 0.25 mm, the absorption molar is 5 and 0.2 units respectively. What is the concentration if the absorbance read is 0.6 units?
   - 5
   - 0.2
   - 5.0
   - 0.2 units
   No, the answer is incorrect. Scale: 3
   Accepted Answers: 5
   1 point

5) In Mass spectrometry which one uses a mass
   - IBA
   - Top
   - MALDI
   No, the answer is incorrect. Scale: 3
   Accepted Answers: MALDI
   1 point

6) Normal phase chromatography is
   - Polar stationary phase and a non-polar solvent
   - Polar stationary phase and a polar solvent
   - Non-polar stationary phase and a polar solvent
   - Non-polar stationary phase and a non-polar solvent
   No, the answer is incorrect. Scale: 3
   Accepted Answers: Polar stationary phase and a non-polar solvent
   1 point

7) Time taken by the bo to reach the detector is proportional to
   - Molecular mass
   - Number of valency electrons
   - Ionic radius
   No, the answer is incorrect. Scale: 3
   Accepted Answers: Molecular mass
   1 point

8) The release of the enzyme inhibits the oxidation of sugar from a cell indicates
   - Cell apoptosis
   - Cell attachment
   - Cell differentiation
   - Cell necrosis
   No, the answer is incorrect. Scale: 3
   Accepted Answers: Cell necrosis
   1 point

9) Cell differentiation does not lead to
   - Killing of pathogens
   - Osmosis of pathogen
   - Blood clotting
   - Recruitment of inflammatory cells
   No, the answer is incorrect. Scale: 3
   Accepted Answers: Blood clotting
   1 point

10) Stress assay is performed to study
    - Cell attachment
    - Cell differentiation
    - Cell death
    - Cell migration
    No, the answer is incorrect. Scale: 3
    Accepted Answers: Cell migration
    1 point