BiolBiotech 2014, midterm test 1.

02 04 2014

1. Which cell organoids are built up/covered from/by biological membranes? Shortly give their functions, too!(10 points)
2. Why biotechnological production processes need stepwise scale up? (2 points)
3. How can influence type of microbe the operational costs in downstream process? (2 points)
4. Describe a method for quantitative determination of biomass (microorganism)! (2 points)
5. Shortly introduce 4 operations in industrial microbiology! (2 points)
6. What are the differences between primary and secondary metabolites? (2 points)
7. Give 3 microscopic features of microbes used for taxonomic identification! (2 points)
8. Explain the notion of *induced fit* of enzyme and substrate (3 points)
9. Show the most important features of the enzymes (enzymatic reactions) (4 points)
10. Show the basics of the Michaelis –Menten kinetic approach. Discuss the V – S relation using it’s characteristic plot. (8 points)
11. What are the most important features of the four reversible enzyme inhibitions? (5 points)
12. Draw a growth curve of a bacterium (x – t), show the parts of the growth curve and discuss (explain) them. (8 points)

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