**BiolBiotech 2nd midterm sample test.**

**2022**

1. What is thermal death rate constant (k) and what does it depend on? How? (**7 p)**
2. How could you determine the optimal treatment time of cell disruption? (**7 p**)
3. Which enzymes can be used for cell disruption? (**3 p**)
4. Explain the role of auxotrophyic mutations in production of amino acids! (**6 p**)
5. For production of a recombinant protein how to choose a prokaryotic or eukaryotic host organism to use? (**3 p**)

**There is only one wright answer:**

1. COD is the oxygen needed for microbial oxidation of organic content of the sample in given conditions (expressed in [mg O2/l sample]) **(2p)**
2. True b. False c. I do not answer
3. Anoxic environment means that oxygen concentration is zero, however, nitrite and nitrate ions are available as therminal electron acceptors **(2p)**
4. True b. False c. I do not answer
5. What is the so-called biogas? **(3p)**
6. I do not answer
7. Mixture of N2 and O2 produced in anaerobic digesters.
8. Mixture of CH4 and CO2 produced in activated sludge bioreactors.
9. Mixture of N2 and O2 produced in acticated sludge bioreactors.
10. Mixture of CH4 and CO2 produced in anaerobic digesters.
11. Which of the below listed processes requires readily biodegradable carbon and anoxic environment? **(3p)**
12. Methane production.
13. Nitrification.
14. Denitrification.
15. Sludge settling.
16. I do not answer.
17. Nitrification is the two-step oxidation of ammonium to nitrate by authotrophic microorganisms. **(2p)**
18. True b. False c. I do not answer

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More test questions

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**Σ50 p**