



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Food Engg. & Technology)
VII Semester Final Re- Examination – February 2023
2019 Admission

Fdqu.2103

Biochemical Engineering (1+1)

Marks: 50
Time: 2 hours

I Fill in the blanks

(10x1=10)

1. The driving force for the sedimentation is
2. The type of curve obtained for the kinetics of allosteric enzymes is
3. The non-protein component of an enzyme is called
4. A mixed fermentation is one, which produces
5. A type of bacterial growth where the cells never reach its stationary phase is calledculture.
6. The enzyme is used for inversion of sucrose to a mixture of fructose and glucose.

State True or False

7. The double reciprocal of Michealis-Menten is known as Eadie-Hofste Plot.
8. During fermentation process the yield of ATP is low.
9. Bubble column reactor has large height to diameter ratio.
10. In international classification Ligases belongs to class two enzymes.

II Write short notes on ANY FIVE of the following

(5x2=10)

1. What are cofactors? Give two examples.
2. Briefly write on the factors which affect enzyme activity.
3. Differentiate between anaerobic and aerobic process.
4. What are the advantages of filtration over sedimentation?
5. Give the applications of fermenter in food industries.
6. State law of diffusion in mass transfer.
7. Explain the importance of Fed batch reactor.

III Answer ANY FIVE of the following

(5x4=20)

1. Explain the role of diffusion in bioprocessing.
2. Design of packed bed reactor
3. Explain temperature control in a fermenter.
4. Importance of aeration and agitation
5. What is meant by enzyme specificity? Explain types of enzyme specificity.
6. Explain types of agitators used in fermentor.
7. Michaelis Menten Kinetics

IV Write an essay on ANY ONE of the following

(1x10=10)

1. Describe the working of a fluidized bed bioreactor. What are its advantages?
2. Batch and continuous sterilisation process in large scale
