

[14]

SARDAR PATEL UNIVERSITY

ON DEMAN EXAMINATION

B.SC, 6th SEMESTER

BIOTECHNOLOGY

USO6CBIT-05

(Industrial Biotechnology)



Date: 28/06/22

Time: 10 :00-12 :00 pm

Total Marks:70

- Q-1 Multiple Choice Question 10**
1. Which among the following is not a nitrogen source?

a) Corn steep liquor	c) Pharmamedia
b) Molasses	d) Soybean meal
 2. Which of the following method is used for screening of antibiotics?

a) Crowded plate technique	c) Use of indicator dyes
b) Auxanography	d) Enrichment method
 3. The approach used for strain improvement.

a) Recombinant DNA technology	c) Mutant selection
b) Recombination	d) All of the above
 4. _____ Sparger is primarily used on laboratory scale in non agitated vessels.

a) Porous	c) Orifice
b) Nozzle	d) Combined sparger-agitator
 5. _____ is also known as centrifugal filters.

a) Solid-bowl centrifuge	c) Basket centrifuge
b) Multichamber centrifuge	d) Disc bowl centrifuge
 6. Which of the following is made up of mixture of pure oxides of iron and nickel?

a) Thermistors	c) Metallic thermometers
b) Mercury in glass thermometers	d) Radiation thermometers
 7. Who describes the sulphite oxidation technique?

a) Cooper et all	c) Wise
b) Humprey	d) Tagucchi
 8. Rennet is _____.

a) Hard cheese	c) Soft cheese
b) Complex set of enzyme	d) Semi hard cheese
 9. The process of making beer is known as _____.

a) Mashing	c) Malting
b) Brewing	d) sparging
 10. Which of the following is not the method for cell disruption?

a) Sonication	c) Use of acid /alkali
b) Streaking	d) Homogenization

- Q-2 Answer the following. 08**
1. Crude media are defined media. State true/false.
 2. Autoclave is an example of batch sterilization. state true/false
 3. The aerator is required to provide _____ in fermenter.
 4. _____ Electrode is used to measure the acid/alkali.
 5. The heat control at large scale in fermenter is carried out by heating jacket. state true/false.

6. Ale beer is produced by top yeast. State true/false.
7. The crushed grapes are known as ____.
8. The pore size of filter must be larger than solids in slurry. State true/false

Q-3

Short questions: (answer any ten)

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1. What is fermentation?
2. Give advantages of continuous sterilization over batch sterilization.
3. Give account on R-DNA technology as strain improvement.
4. Give an account on basket centrifuge.
5. Discuss enzymes as method for cell disruption.
6. Give function of baffles.
7. Enlist factors affecting K_La .
8. What are thermistors give its use.
9. Why agitation aeration are important criteria in a fermentor.
10. Give suitable difference between red wine and white wine.
11. What is the used of hops in beer production?
12. Enlist various techniques for preservation of food.

Q-4

Long Question (answer any four)

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1. Discuss primary screening in detail.
2. Write a detail note on fermentation media.
3. Discuss agitation and aeration of a fermenter.
4. Discuss filtration as method of downstream process.
5. Give an account on measurement of pH and temperature in fermentor.
6. What is K_La ? Discuss any two techniques to determine K_La .
7. Discuss cheese production.
8. Give an idea on beer production.

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