

SEAT No. _____

No. of Printed Pages : 2

[187A15]

SARDAR PATEL UNIVERSITY

EXTERNAL EXAMINATION- APRIL/ MAY - 2017

B.Sc. - BIOCHEMISTRY. VI semester

Microbiology and fermentation technology.

Paper Code No. US06CBCH06

DATE:-7/4/17

Total marks:70

Time:10:00am -1:00pm

Q.1 Multiple choice Questions:

10 marks

1. Prokaryotes can be kept in major ----- division
A) Six B) Five C) Two D) Four
2. -----diseases do not contain Cell Wall
A) Chloroplasts B) Eukaryotic C) Spheroplast D) Primitive
3. Vinegar generator with modern technology is equipped with automatic control for -----
A) alcoholic liquid B) starch C) fruit juice D) culture
4. Alcohol distillation without transfer is carried out by -----method
A) batch culture B) continuous culture C) Microbial siphon D) All Three
5. Production of commercial enzymes is from-----
A) Plant B) Animal C) Microbial source D) All Three
6. ----- is example of hard cheese.
A) cheddar B) cucumber C) Microbial source D) All Three
7. For fermentation of milk, Symbiotic Culture is composed of
A) *S.thermophilus* B) *L.durbrueckli*
C) *S.thermophilus* & *L.durbrueckli* D) *propionibacterium*
8. Use of Antibiotics kill out intestine ----- bacteria
A) Harmful B) beneficial C) gram positive D) gram negative
9. Industrially important microorganism can be isolated using-----
A) Selective pressure B) Selective factor
C) Selective medium D) None of the above
10. ----- method of preservation requires Dewar flask.
A) Lyophilization B) nitrogen storage C) mineral oil D) all three

(1)

(PTO)

Q.2 Answer in short. (Two mark each-Attempt any ten) **20**

1. Write on Whitaker classification.
2. Classify phylum Firmicutes.
3. Differentiate ribosomes of plant cell and bacterial cell
4. Highlight on ranges of fermentation process.
5. What do you mean by Open System of fermentation
6. Write on application of protease enzyme in dairy industry.
7. Classify types of cheese
8. List the amount of protein present in different sources of milk.
9. Why irradiated milk is good for health.
10. Write on method to detect Antibiotics ?
11. Explain importance of the mineral oil to preserve industrially important microorganisms .
12. Define - screening of micro organisms

LONG QUESTIONS

40

Q.3 A] Draw a structure for gram positive bacterial cell wall and explain labelled biomolecule 5

B] Discuss- effect of streptomycin on cell wall biosynthesis of bacteria. 5

OR

Q.3 A] Draw a structure for gram negative bacterial cell wall and write an account on it's biomolecules 4

B] Explain synthesis of peptidoglycan layer in bacterial cell 6

Q.4 A] Give brief account on preservation of micro-organisms at reduced temperature. 6

B] Write an account on preservation of micro-organisms using nitrogen. 4

OR

Q.4 A] Write an account on microbial screening methods 6

B] Explain a method to study growth factor forming microorganism 4

Q.5 A] Give brief account on production of Vinegar 5

B] Explain steps in production of alcohol 5

OR

Q.5 A] Draw a generalized schematic representation of fermentation process. 5

B] Explain -role of microbial enzymes in dairy and cereal industry. 5

Q.6 A] Describe- method of cheese production. 10

OR

A] Discuss steps in production of yoghurt 10