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(11/A-6) SEAT No._____ No. of Printed Pages : 02

# SARDAR PATEL UNIVERSITY

## EXTERNAL EXAMINATION– APRIL -2019

## VI semester Paper Code No. US06CBCH06

### MICROBIOLOGY AND FERMENTATION TECHNOLOGY

**DATE:-4/4/2019 Thursday** **Total marks:70** **Time:10:00am -1:00pm**

**Q.1** **Multiple Choice Questions:** 10

1 ---------- species require for malolactic fermentation.

A) Lacto bacilli B) Yeast C) Ellipsoid us D) Gluconobacter

2 To eliminate---------- Industrial culture must be stored carefully.

A) Desirable characteristics B) Contamination

C)Genetic change D) All of Above

3 A rank above kingdom level,is known as ----------for bacterial taxonomy .

A] genus B) domain C) taxa D) species

4 Growth supporting medium is known as ----------

A] Batch culture B] Chemo state C] Steady state D] Turbido state

5 Biological meaning of term fermentation is relates--------

A] Generation of Energy B] fervere

C] Carbon-dioxide Production D] Catabolism Organic compound

6 Selective------- is an important characteristic for the isolation process for industrially important microorganism .

A) pressure B) factor C) medium D) pH

7 For re-suspending the cells in lypholization method protective medium is----------

A) Agar B) Sodium Glutamate C) Glycerol D) Plasma

8 ---------- method is used to isolate growth factor forming microorganisms.

A] solid culture B]crowed plate C] auxanography D] liquid culture

9 Harmful and beneficial bacteria of the intestine are killed on consumption of -------

A) Antibiotics B) probiotics C) Prebiotics D) none of the above

10 The good example of low fat cheese is ------.

A) cheddar B) cottage C) Swiss D)camembert



(P.T.O.)

**Q.2** **Short questions.[ATTEMPT ANY TEN]** 20

1) Which are the basic steps required to obtain fermented product.
2) What do you mean by continuous culture fermentation?
3) which are the criteria important to select industry important organisms.
4) Explain feedback inhibition and repression.
5) Explain importance of teichoic acid
6) Give classification and examples for cheese
7) Explain – how irradiated milk is beneficial for health.
8) What is symbiotic culture.
9) Enlist culture collection centers for indusrial important micro-organism,
10) Classify-preservation methods for microorganism.
11) Give meaning for acceleration and de acceleration phase.
12) How Antibiotics can be detected?

**Q.3** **Long questions**

| | | | |
|---|---|---|---|
| 3 | A | Draw a structure of peptidoglycan molecules and explain biomolecules require to synthesize cellwall in gram-positive bacterial cell. | 6 |
| | B | Differentiate gram positive and gram negative bacterial cell wall | 4 |
| | | OR | |
| | A | Explain effect of antibiotics on cell wall biosynthesis. | 6 |
| | B | Give Whittaker classification and characteristic for each. | 4 |
| 4 | A | Give brief account on production of penicillin by fermentation technology. | 5 |
| | B | Write on production of vinegar. | 5 |
| | | OR | |
| | A | Draw a schematic representation of fermentation process for alcohol production. | 5 |
| | B | Explain – steps for production of wine | 5 |
| 5 | A | Classify and Discuss microbial screening methods. | 6 |
| | B | Write note on cryo- preservation methods | 4 |
| | | OR. | |
| | A | Give brief account on isolation of micro-organisms from crude material. | 6 |
| | B | Explain- lyophilizing method. | 4 |
| 6 | | Give a detailed account on each steps for production of hard cheese. | 10 |
| | | OR | |
| 6 | | Explain -probiotics and its advantages for human health | 10 |

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