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## Sardar Patel University



Biotechnology - VI - Semester

US06CBIT-22

(Industrial Biotechnology)

Date: 24-06-2022, Friday

Time: 10 AM TO 12 PM

Marks: 70

### Q-1 Multiple Choice Question

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1. What does a trademark protect?
  - a) An invention
  - b) A secret formula
  - c) Work art
  - d) Logos, names, brands
2. Under which bio safety level should you work when dealing with dangerous microorganism with no known cure/ vaccine?
  - a) BS 1
  - b) BS 4
  - c) BS 2
  - d) BS 3
3. Which among this impeller shaft do not pierce the fermentation vessel?
  - a) Bush seal
  - b) Mechanical seal
  - c) Magnetic drives
  - d) Packed gland seal
4. \_\_\_\_\_ can be used in the precipitation of proteins mainly due to changes in the dielectric properties of the solution.
  - a) Acetone
  - b) Kieselguhr
  - c) PEG
  - d) Triazine dye
5. Which of the following methods dehydrates microbial cells by plasmolysis thereby killing them?
  - a) Sugaring
  - b) Heating
  - c) Pasteurization
  - d) Smoking
6. In static method of gassing out \_\_\_\_\_ is used as scrubber.
  - a) Carbon dioxide
  - b) Sodium thiosulphate
  - c) Nitrogen
  - d) Ammonia
7. Lagers are the beer in which fermentation is carried out using \_\_\_\_\_.
  - a) Top yeast
  - b) Bottom yeast
  - c) Dried yeast
  - d) Middle yeast
8. Cuvee in sparkling wine production is?
  - a) The wire cage that hold cork
  - b) Sugar addition before corking
  - c) Yeast addition
  - d) The base wine
9. Absorbing oxygen from the air and pollutants from wastewater can be decomposed aerobic microorganism by which of the following method?
  - a) High rate biofilters
  - b) Conventional biofilters
  - c) Rotating biological contractors
  - d) Rotating drum
10. What is required to keep the activated sludge suspended?
  - a) Carbon dioxide
  - b) Nitrogen

b) oxygen

d) Ammonia

Q-2

**Answer the Following**

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1. Activated sludge uses \_\_\_\_\_ to degrade organic waste from wastewater.
2. A trickling filter is primarily a biological oxidation process to remove \_\_\_\_\_ from sewage.
3. The centrifuge most suitable for separation moulds mycelia or crystalline compounds is \_\_\_\_\_.
4. Filter Aid decreases the porosity of filter and decreases the flow rate when added initially in fermented broth. State True or False.
5. \_\_\_\_\_ is added to induce bitter taste in beer.
6. Naturally occurring genes cannot be patented. State true or false.
7. \_\_\_\_\_ protects the breeding lineage of plants.
8. The crushed grapes are known as \_\_\_\_.

Q-3

**Write any ten of the following.**

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1. Give advantages of tangential filters.
2. What is Pasteurization?
3. What are lagoons?
4. What is activated sludge?
5. What are thermistors?
6. Define BOD and give its significance in waste water treatment.
7. Write the full forms of WIPO and TRIPS
8. Give an account of Freezing and Thawing.
9. Define Biosafety and trade secret.
10. Give difference between Red and white wine.
11. What are hops?
12. Give significance of patenting?

Q-4

**Long Question( Any four)**

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1. Discuss aeration and agitation equipments for CST fermenter.
2. Discuss various methods for determination of  $K_L a$
3. Discuss Heat as method of preservation of food.
4. Explain Beer Production in detail.
5. Give a detail account on activated sludge process.
6. Write note on : 1. Trickling Filter and  
2. RBC
7. Discuss the various levels of Biosafety.
8. Discuss various forms of IPR and its significance.

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