



RAN - 1903000203020071



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S. Y. B. Sc. (Sem. - III) Examination

March - 2023

MLT-05 : Environmental and Food Microbiology

સૂચના : / Instructions

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

Name of the Examination:

S. Y. B. Sc. (Sem. - III)

Name of the Subject :

MLT-05 : Environmental and Food Microbiology

Subject Code No.: 1903000203020071

Seat No.:

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Student's Signature

(2) All questions are compulsory.

***O.M.R. Sheet ભરવા અંગેની અગત્યની સૂચનાઓ આપેલ
O.M.R. Sheetની પાછળ છાપેલ છે.***

***Important instructions to fillup O.M.R. Sheet
are given on back side of the provided O.M.R. Sheet.***

SET - A

- Q. 1. Which method is commonly employed in laboratory for qualitative analysis of airborne microorganisms?
- A. Standard Plate Count B. Multiple Tube Fermentation
C. Settling Plate technique D. Coulter Counter
- Q. 2. What is the concentration of ethanol in kefir?
- A. 1% B. 2%
C. 5% D. 10%
- Q. 3. Which of the following chemical agent helps to preserve cured meats by inhibiting growth of *Clostridium botulinum*?
- A. Sodium chloride B. Sodium nitrite
C. Sodium carbonate D. Sodium hydroxide
- Q. 4. Which of the following is mold-ripened cheese?
- A. Blue cheese B. Brick cheese
C. Swiss cheese D. Cheddar cheese
- Q. 5. The causative agent of Creutzfeldt-Jakob disease is:
- A. Virus B. Bacteria
C. Protozoa D. Prions
- Q. 6. Which of the following is an example of yeast-lactic fermentation?
- A. Yakult B. Kefir
C. Yogurt D. Buttermilk
- Q. 7. Eggs are rich in _____ enzyme that can lyse the cell wall of contaminating gram-positive bacteria.
- A. Lysozyme B. Ribozyme
C. Pectinase D. Cellulase

- Q. 8. _____ is an important microorganism for the production of wine and beer.
- A. *Saccharomyces cerevisiae* B. *Lactobacillus bulgaricus*
C. *Aspergillus flavus* D. *Candida albicans*
- Q. 9. Malolactic fermentation is an important step in the production of _____.
- A. Cheese B. Pickle
C. Yogurt D. Wine
- Q. 10. Wort is boiled with hops ;
- A. To help in protein coagulation
B. To help in the process of fermentation
C. To provide bitter taste and flavor to the beer
D. All of the above
- Q. 11. _____ is considered a leading cause of acute bacterial gastroenteritis in humans.
- A. *Bacillus subtilis* B. *Campylobacter jejuni*
C. *Staphylococcus aureus* D. *Clostridium botulinum*
- Q. 12. Probiotic is:
- A. Good bacteria B. Harmful bacteria
C. Commensals D. Obligate Anaerobic bacteria
- Q. 13. The cause of ergotism is:
- A. *Campylobacter jejuni* B. *Aspergillus niger*
C. *Staphylococcus aureus* D. *Claviceps purpurea*
- Q. 14. Which one among the following is responsible for formation of root nodules in leguminous plants?
- A. *Rhizobium* B. *Clostridium*
C. *Azotobacter* D. *Aspergillus*

- Q. 15.** Mycorrhiza is symbiotic association between:
- A. Fungus and bacteria B. Fungus and plant root
C. Fungus and rock D. Fungus and algae
- Q. 16.** The plant roots release _____ that stimulate rhizobial colonization of the root surfaces.
- A. Flavonoid B. Eugenol
C. Citric acid D. Coumarins
- Q. 17.** Which bacterium is used as source of biopesticide?
- A. *Escherichia coli* B. *Pseudomonas aeruginosa*
C. *Claviceps purpureas* D. *Bacillus thuringiensis*
- Q. 18.** Select the INCORRECT statement from the below:
- A. BGA is used as biofertilizer.
B. Biofertilizers are cost effective as well as eco-friendly.
C. Biofertilizers does not have a favourable influence on soil health.
D. Biofertilizers are safe to crops and users both.
- Q. 19.** Rhizosphere effect can be determined by _____ ratio.
- A. A:B B. X:Y
C. R:S D. R:T
- Q. 20.** Which bacteria is responsible for the following, reaction?
Reaction: Ammonia → Nitrite
- A. Azotobacter B. Rhizobium
C. Nitrobacter D. Nitrosomonas
- Q. 21.** Which of the following is an example of symbiotic nitrogen fixer?
- A. *Rhizobium* B. *Azotobacter*
C. *Azolla* D. *Clostridium*

- Q. 22.** Which materials are present in the environment of rhizosphere?
- A. Polysaccharides B. Nucleotides
C. Vitamins D. All of the above
- Q. 23.** Which of the following is harmful microbial interaction?
- A. Commensalism B. Cooperation
C. Mutualism D. Antagonism
- Q. 24.** The transformation of nitrates to gaseous nitrogen is accomplished by microorganisms in a series of biochemical reactions. The process is known as _____.
- A. Nitrification B. Denitrification
C. Ammonification D. Nitrogen fixation
- Q. 25.** IPM stands for:
- A. Integrated Pest Manufacture B. Integrated Plant Management
C. Integrated Plant Manufacture D. Integrated Pest Management
- Q. 26.** Constructed wetlands are known as _____ wetlands.
- A. Natural B. Mechanical
C. Artificial D. All of the above
- Q. 27.** Give full form of MPN.
- A. Massive Proper Number B. Massive Probable Number
C. Most Positive Number D. Most Probable Number
- Q. 28.** The water testing relies on the detection of indicator organisms known as:
- A. Acid-fast bacteria B. Cyanobacteria
C. Coliforms D. Dinoflagellates

- Q. 29.** Biological nutrient removal by anammox reaction focuses on removal of:
- A. Sulfur
 - B. Carbondioxide
 - C. Heavy metal
 - D. Nitrogen
- Q. 30.** Which of the following test for coliforms is a modification of MPN procedure?
- A. Voges Proskauer (VP) test
 - B. Standard Plate Count (SPC)
 - C. Presence-Absence (PA) test
 - D. Indole test
- Q. 31.** In which secondary method of wastewater treatment process microorganisms are attached to crushed stones/pebbles forming biofilm reactor?
- A. Extended aeration treatment
 - B. Trickling filter
 - C. Aerobic activated sludge
 - D. Anaerobic digester
- Q. 32.** Coliforms are:
- A. Obligate aerobe
 - B. Facultative anaerobe
 - C. Obligate anaerobe
 - D. Microaerophile
- Q. 33.** The level of an indicator bacteria in contaminated water should have some direct relationship with:
- A. Degree of fecal pollution.
 - B. Industrial pollution.
 - C. Radioactive waste.
 - D. Degree of oil spills.
- Q. 34.** Tertiary treatment of wastewater is particularly important to remove:
- A. Carbon, Nitrogen
 - B. Sulphate, Carbon
 - C. Nitrogen, Phosphorus
 - D. Phosphorus, Sulphate
- Q. 35.** Sewage is:
- A. Industrial waste
 - B. Domestic waste
 - C. Brewery waste
 - D. Biomedical waste

- Q. 43. _____ is based on the principle that the particles move towards the lower temperature region when subjected to a strong temperature gradient.
- A. Thermal precipitation B. Electrostatic precipitation
C. Centrifugation D. Ultracentrifugation
- Q. 44. In Bead Bubbler device, glass beads of size about _____ size in diameter are kept around the glass bubbler.
- A. 1 mm B. 3 mm
C. 5 mm D. 7 mm
- Q. 45. Droplets expelled during coughing consists of:
- A. Saliva and microorganisms
B. Saliva, mucus and microorganisms
C. Only saliva
D. Only microorganisms
- Q. 46. Who developed a multistage sieve device?
- A. Bourdillon B. Anderson
C. Hiltner D. Koch
- Q. 47. Which of the following can survive severe conditions of high altitudes?
- A. Bacterial spore B. Dinoflagellates
C. Mold D. Yeast
- Q. 48. _____ consists of a glass folin aeration tube with a perforated bulb with six holes at one end.
- A. Lemon sampler B. Bead bubbler device
C. Sieve device D. Slit device

SPACE FOR ROUGH WORK