



RAN - 2103001103030005

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B. Sc. (Microbiology) (A.T.K.T.) (Sem. - III) Examination

March - 2023

Microbiology : MB302

Control of Microorganisms in the Environment

[Total Marks: 50

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:

B. Sc. (Microbiology) (A.T.K.T.) (Sem. - III)

Name of the Subject :

Microbiology : MB302 Control of Microorganisms in the Environment

Subject Code No.: **2103001103030005**

Seat No.:

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Student's Signature

- (2) This exam contains 50 multiple choice questions, each worth 1 mark.
(3) 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.***

- Q. 10.** Least concentration of an antimicrobial agent that inhibits the visible growth of test bacterium is called as _____.
- A. Minimum Inhibitory Concentration
 - B. Minimum Lethal Concentration
 - C. Growth Inhibitory Concentration
 - D. Maximum Inhibitory Concentration
- Q. 11.** Plasmolysis is
- A. Shrinkage of cells when placed in hypotonic solution
 - B. Shrinkage of cells when placed in hypertonic solution
 - C. Swelling of cells when placed in hypotonic solution
 - D. Swelling of cells when placed in hypertonic solution
- Q. 12.** The presence of _____ can dramatically affect the effectiveness of antimicrobial agent.
- A. Single cell
 - B. Biofilm
 - C. Capsid
 - D. Cell wall
- Q. 13.** In _____, iodine is linked to a carrier molecule that releases free iodine slowly.
- A. Chromophore
 - B. Chlorophore
 - C. Iodophore
 - D. Fluorophore
- Q. 14.** _____ is used to decontaminate enclosed spaces such as safety cabinets and small rooms.
- A. Hydrogen peroxide
 - B. Vaporized hydrogen peroxide
 - C. Glutaraldehyde
 - D. Ethylene oxide
- Q. 15.** Which of the following can be used for disinfection of drinking water?
- A. Oxygen
 - B. Ozone
 - C. Hydrogen peroxide
 - D. Formaldehyde
- Q. 16.** Heavy metals mostly react with _____ groups of proteins to denature them.
- A. Amino groups
 - B. Sulfhydryl groups
 - C. Alkyl group
 - D. Carboxyl group
- Q. 17.** Aldehydes exert their antimicrobial activity by
- A. Oxidation of lipids
 - B. Oxidation of proteins
 - C. Oxidation of carbohydrates
 - D. Alkylation of DNA

- Q. 18.** Phenol exerts its antimicrobial effect by
- Denaturing proteins and disrupting cell membrane
 - Disrupting cell wall
 - Oxidizing lipids
 - Denaturing DNA
- Q. 19.** _____ is frequently used to evaluate the effectiveness of antimicrobial agents.
- Phenol concentration test
 - Phenol coefficient test
 - Alcohol coefficient test
 - Alcohol concentration test
- Q. 20.** Which of the following is not effective on spores?
- Steam under pressure
 - Glutaraldehyde
 - Alcohol
 - Ethylene oxide
- Q. 21.** Crystal violet dye is included in MacConkey's agar medium to inhibit the growth of _____.
- Gram negative bacteria
 - Gram positive bacteria
 - Capsulated bacteria
 - Acid-fast bacteria
- Q. 22.** Detergents are considered as
- Low level germicides
 - High level germicides
 - Antiseptics
 - Sterilants
- Q. 23.** Which of the following is often referred as household bleach?
- Sodium chloride
 - Sodium carbonate
 - Sodium hypochlorite
 - Sodium bicarbonate
- Q. 24.** SDS is a
- Cationic detergent
 - Anionic detergent
 - Neutral detergent
 - SDS is not a detergent
- Q. 25.** Hydrogen peroxide inhibits the growth of bacteria by
- Generating ROS
 - Denaturing cell wall
 - Solubilizing cell membrane lipids
 - Creating pores in cell membrane
- Q. 26.** Among the following which is the most effective method of killing microorganisms?
- High temperature
 - Low temperature
 - High temperature, high moisture
 - Low temperature, low moisture

- Q. 44.** HEPA stands for
A. High Efficiency Particulate Air
B. High Efficiency Provisional Air
C. Highly Efficient Particulate Agent
D. Highly Effective Particle Agent
- Q. 45.** What is the pore size of HEPA filter?
A. 0.50 μm
B. 0.45 μm
C. 0.33 μm
D. 1 μm
- Q. 46.** Depth filters are generally used for filtration of
A. Blood
B. Water
C. Media
D. Air
- Q. 47.** Cold sterilization refers to the use of _____ for sterilization.
A. Hot air
B. Steam under pressure
C. Radiations
D. Phenolics
- Q. 48.** Which of the following is not used to preserve food?
A. High concentrations of sugar.
B. High concentrations of salt.
C. Benzoic acid.
D. Ethylene oxide.
- Q. 49.** Which of the following includes intermittent heat sterilization?
A. Pasteurization
B. Tyndallization
C. Autoclaving
D. Hot Air sterilization
- Q. 50.** Gamma rays for sterilization is obtained from a _____ based light source.
A. Cobalt 60
B. Mercury
C. Tungsten
D. Deuterium
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SPACE FOR ROUGH WORK