



RAN - 2103000203026002



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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.: **2103000203026002**

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.***

SET - I

- Q. 1. Aldehydes exert their antimicrobial activity by
A. Oxidation of lipids B. Oxidation of proteins
C. Oxidation of carbohydrates D. Alkylation of DNA
- Q. 2. Phenol exerts its antimicrobial effect by
A. Denaturing proteins and disrupting cell membrane
B. Disrupting cell wall
C. Oxidizing lipids
D. Denaturing DNA
- Q. 3. _____ is frequently used to evaluate the effectiveness of antimicrobial agents.
A. Phenol concentration test B. Phenol coefficient test
C. Alcohol coefficient test D. Alcohol concentration test
- Q. 4. Which of the following is not effective on spores?
A. Steam under pressure B. Glutaraldehyde
C. Alcohol D. Ethylene oxide
- Q. 5. Crystal violet dye is included in MacConkey's agar medium to inhibit the growth of _____.
A. Gram negative bacteria B. Gram positive bacteria
C. Capsulated bacteria D. Acid-fast bacteria
- Q. 6. Detergents are considered as
A. Low level germicides B. High level germicides
C. Antiseptics D. Sterilants
- Q. 7. Which of the following is often referred as household bleach?
A. Sodium chloride B. Sodium carbonate
C. Sodium hypochlorite D. Sodium bicarbonate
- Q. 8. SDS is a
A. Cationic detergent B. Anionic detergent
C. Neutral detergent D. SDS is not a detergent
- Q. 9. Hydrogen peroxide inhibits the growth of bacteria by
A. Generating ROS
B. Denaturing cell wall
C. Solubilizing cell membrane lipids
D. Creating pores in cell membrane

- Q. 10.** Among the following which is the most effective method of killing microorganisms?
- A. High temperature
 B. Low temperature
 C. High temperature, high moisture
 D. Low temperature, low moisture
- Q. 11.** Which of the following instrument uses steam under pressure to sterilize the material?
- A. Hot Air Oven
 B. Autoclave
 C. Water bath
 D. UV cabinet
- Q. 12.** _____ is the killing, inhibition, or removal of microorganisms that may cause disease; and it causes substantial reduction of the total microbial population and the destruction of potential pathogens.
- A. Sterilization
 B. Disinfection
 C. Sanitization
 D. Antisepsis
- Q. 13.** Use of chemical agents to kill or inhibit the growth of microorganisms within host tissue is referred as _____.
- A. Chemotherapy
 B. Radiotherapy
 C. Immunotherapy
 D. Surgery
- Q. 14.** Gaseous chemical agents can be used for
- A. Sterilization only
 B. Disinfection only
 C. Chemotherapy
 D. Sterilization & disinfection
- Q. 15.** Which of the following method involves the complete removal or destruction of all viable microorganisms including spores?
- A. Antisepsis
 B. Disinfection
 C. Sterilization
 D. Sanitization
- Q. 16.** Which of the following are the physical agents used for sterilization?
- A. Dry heat
 B. Ionizing radiations
 C. Moist heat
 D. All of these
- Q. 17.** Which of the following is based on mechanical method for microbial control?
- A. Ethylene Oxide
 B. Membrane Filters
 C. Phenolics
 D. Glutaraldehyde

- Q. 26.** Which of the following is most resistant to destruction by chemicals and heat?
A. Fungal spores
B. Bacterial endospores
C. *E. coli*
D. *M. tuberculosis*
- Q. 27.** Unlike a disinfectant, an antiseptic
A. Sanitizes objects rather than sterilizes them.
B. Requires heat to be effective
C. Is non-toxic enough to be used on human skin.
D. Destroys all microorganisms.
- Q. 28.** HEPA stands for
A. High Efficiency Particulate Air
B. High Efficiency Provisional Air
C. Highly Efficient Particulate Agent
D. Highly Effective Particle Agent
- Q. 29.** What is the pore size of HEPA filter?
A. 0.50 μm
B. 0.45 μm
C. 0.33 μm
D. 1 μm
- Q. 30.** Depth filters are generally used for filtration of
A. Blood
B. Water
C. Media
D. Air
- Q. 31.** Cold sterilization refers to the use of _____ for sterilization.
A. Hot air
B. Steam under pressure
C. Radiations
D. Phenolics
- Q. 32.** 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. 33.** Which of the following includes intermittent heat sterilization?
A. Pasteurization
B. Tyndallization
C. Autoclaving
D. Hot Air sterilization
- Q. 34.** Gamma rays for sterilization is obtained from a _____ based light source.
A. Cobalt 60
B. Mercury
C. Tungsten
D. Deuterium

- Q. 44.** 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. 45.** 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. 46.** The presence of _____ can dramatically affect the effectiveness of antimicrobial agent.
- A. Single cell
 - B. Biofilm
 - C. Capsid
 - D. Cell wall
- Q. 47.** In _____, iodine is linked to a carrier molecule that releases free iodine slowly.
- A. Chromophore
 - B. Chlorophore
 - C. Iodophore
 - D. Fluorophore
- Q. 48.** _____ 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. 49.** Which of the following can be used for disinfection of drinking water?
- A. Oxygen
 - B. Ozone
 - C. Hydrogen peroxide
 - D. Formaldehyde
- Q. 50.** Heavy metals mostly react with _____ groups of proteins to denature them.
- A. Amino groups
 - B. Sulfhydryl groups
 - C. Alkyl group
 - D. Carboxyl group
- _____

SPACE FOR ROUGH WORK