



DF-3000

B. Sc. (Microbiology) (Sem. III) Examination

March/April – 2016

MB-05 : Control of Microorganisms

Time : 2 Hours]

[Total Marks : 50

Instructions :

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="B. Sc. (MICROBIOLOGY) (SEM. 3)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="MB-05 : CONTROL OF MICROORGANISMS"/>	<input type="text"/>
Subject Code No. : <input type="text" value="3"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/>	<input type="text"/>
Section No. (1, 2,.....) : <input type="text" value="Nil"/>	
Student's Signature	

- (2) This exam contains 50 multiple choice questions, each carries one mark.
- (3) Choose only ONE most appropriate answer per question.
- (4) Do not crease or fold the answer sheet.

O.M.R. Sheet ભરવા અંગેની અગત્યની સૂચનાઓ આપેલ O.M.R. Sheet-ની પાછળ છાપેલ છે.
Important instructions to fillup O.M.R. Sheet is given on back side of the provided O.M.R. Sheet.

- 1 Monilia and Torula fungi can be inhibited by
 - (A) rose bengal
 - (B) crystal violet
 - (C) neutral red
 - (D) methylene blue

- 2 QAC belongs to _____ category.
 - (A) Anionic
 - (B) Cationic
 - (C) All of them
 - (D) Nonionic

- 3 The group that play major role in alkylation by ethylene oxide is :
 - (A) Carboxyl
 - (B) Sulfhydryl
 - (C) All of them
 - (D) Amino

- 4 Which of the following have sporocidal property ?
 - (A) Alcohol
 - (B) Phenol
 - (C) Dyes
 - (D) Aldehydes

- 5 Which of the following can act as a sterilant ?
 - (A) Ethylene oxide
 - (B) Detergents
 - (C) Silver nitrate
 - (D) QAC

- 6 Glutaraldehyde is good antimicrobial agent for :
- (A) Fungi
 - (B) Viruses
 - (C) All of them
 - (D) Endospore of bacteria
- 7 What is the correct application of Acridine dyes ?
- (A) Ophthalmic application
 - (B) Treatment of burn and wound
 - (C) All of them
 - (D) Bladder irritation
- 8 To make colloidal silver compounds, silver or its oxide is combined with
- (A) Proteins
 - (B) Liposomes
 - (C) Any of them
 - (D) Salts of mercury
- 9 Ionizing radiations are used to sterilize :
- (A) Heat sensitive substances
 - (B) Proteinaceous substances
 - (C) Non-proteinaceous substances
 - (D) Heat resistant substances
- 10 Effect of temperature on microorganisms depends on :
- (A) Type of microbe
 - (B) Rate of metabolism
 - (C) All of them
 - (D) Intensity of application

- 11 Disinfection means :
- (A) Inhibition of organism that cause disease
 - (B) Removal of microorganisms to reduce total microbial population
 - (C) All of these
 - (D) Killing of pathogen
- 12 Which of the following is responsible for resistance against antimicrobial agent ?
- (A) Capsule
 - (B) Vegetative form
 - (C) Endospores
 - (D) Young age of bacterial cell
- 13 Tyndallization means
- (A) Pasteurization
 - (B) Autoclaving
 - (C) Intermittent sterilization
 - (D) Irradiation
- 14 Cold sterilization means
- (A) Sterilization using ice
 - (B) Sterilization using gamma rays
 - (C) Sterilization using solar rays
 - (D) Sterilization at -196°C temperature
- 15 For a disinfectant, phenol co-efficient method indicates its
- (A) Dilution
 - (B) Efficacy
 - (C) Purity
 - (D) Quantity
- 16 Boiling water cannot destroy
- (A) Bacterial spores
 - (B) Fungal spores
 - (C) None of them
 - (D) Vegetative cells
- 17 The indicator bacteria in an autoclave indicate efficient sterilization, means
- (A) they grow in the medium
 - (B) they do not grow in sterile distilled water
 - (C) All of them
 - (D) they do not grow in the medium

- 18 Fractional sterilization was mainly designed for
(A) Heat resistant spores
(B) Fungal cells
(C) None of these
(D) Heat sensitive materials
- 19 The advantages of dry heat sterilization are :
(A) It does not corrode metallic instrument
(B) It can be used for volatile substances
(C) It is applicable for antibiotics
(D) It is suitable for heat sensitive plastic materials
- 20 Inoculating wire loops are sterilized by :
(A) Autoclave
(B) Radiation
(C) Chemicals
(D) Incineration
- 21 A cryoprotectant is the agent that :
(A) Protect cell damage at low pH
(B) Protect cell damage at low temperature
(C) Protect cell damage at low water concentration
(D) Prevent cell lysis due to osmotic pressure
- 22 The temperature of liquid nitrogen is :
(A) -96°C
(B) -196°C
(C) 4°C
(D) -100°C
- 23 The fabricating material of membrane filters is :
(A) Polyethylene chloride
(B) Cellulose acetate
(C) Magnesium sulfate
(D) Silica
- 24 HEPA filters are a type of :
(A) Membrane filter
(B) Soil filter
(C) Wire gauze
(D) Depth filter

- 25 Which of the following is not high energy radiation ?
- (A) UV rays
 - (B) Infrared rays
 - (C) Gamma rays
 - (D) X-rays
- 26 Radiation as sterilizing agent possess energy in the form of
- (A) Ultrasonic waves
 - (B) Cold waves
 - (C) Electromagnetic waves
 - (D) Thermal / heat waves
- 27 Electromagnetic radiation has the following property
- (A) Discontinuous particle phenomanon
 - (B) Both of them
 - (C) None of them
 - (D) Continuous wave phenomenon
- 28 Lyophilized cultures are also known as :
- (A) Dehydrated culture
 - (B) Vacuum dried culture
 - (C) All of them
 - (D) Desiccated culture
- 29 Detergent can also act as a disinfectant, when
- (A) Detergent activity gives cleansing effect
 - (B) Both of them
 - (C) None of them
 - (D) Improves the effectiveness of chemical agent
- 30 Destruction of vegetative pathogens but not bacterial endospore is :
- (A) Disinfection
 - (B) Sterilization
 - (C) Degermination
 - (D) Antisepsis

- 31 Ethanol is found practically inert against :
- (A) Protozoa (B) Bacterial endospores
(C) Vegetative cells (D) Fungi
- 32 _____ is the example of copper based fungicide.
- (A) Colloidal mixture (B) Bordeaux mixture
(C) Bordet mixture (D) Boric acid mixture
- 33 Which concentration of malachite green can inhibit *Staphylococcus aureus* ?
- (A) 1 : 100,000 (B) 1 : 10,00,000
(C) 1 : 30,00,000 (D) 1 : 3000
- 34 The best disinfectant for skin is :
- (A) Iodine (B) Alcohol
(C) Phenol (D) Chlorine
- 35 Oligodynamic action means : Inhibition of microbes by _____.
- (A) Oligonucleotide
(B) Small amount of heavy metal
(C) None of them
(D) Halogen
- 36 Which of the following are most sensitive to QAC ?
- (A) Gram positive bacteria (B) Acid fast bacteria
(C) None of them (D) Gram negative bacteria
- 37 Which of the following procedure cannot destruct bacterial endospore ?
- (A) Incineration (B) Disinfection
(C) None of them (D) Sterilization
- 38 Heat kills rapidly at :
- (A) An alkaline pH (B) Neutral pH
(C) All of them (D) An acidic pH
- 39 Which of the following takes more time to pasteurize ?
- (A) Tomato juice (B) Milk
(C) Water (D) Fruit juice
- 40 Bacteria can be killed at 60-70°C temperature within _____ minutes.
- (A) 30 (B) 5
(C) 20 (D) 10

- 41 The efficiency of HEPA filter is :
- (A) 95.8% (B) 99.97%
(C) 100% (D) 90.00%
- 42 Depth filters are made up of
- (A) Unglazed porcelain
(B) Asbestos
(C) Any of them
(D) Diatomaceous earth
- 43 Glutaraldehyde exhibit a wide spectrum of antimicrobial activity at
- (A) 8% solution (B) 0.5% solution
(C) 2% solution (D) 4% solution
- 44 Halogenation of which amino acid affects the activity of enzyme ?
- (A) Tyrosine (B) Tryptophan
(C) Glutamine (D) Lysine
- 45 Which of the following is not true ?
- (A) Phenol is also called carbolic acid
(B) Chlorinated lime is an example of chloramines
(C) Iodine posses sporocidal activity
(D) Ethanol cannot destroy bacterial spores
- 46 Which of the following are used to treat Athlete's foot ?
- (A) Phenolic compound (B) Chlorine compounds
(C) Detergents (D) Alcohol
- 47 Which of them is an ideal and most effective antimicrobial agent ?
- (A) Iron (B) Silver
(C) Zinc (D) Sodium
- 48 At which concentration mercury compound exert bactericidal effect ?
- (A) 1 : 10000 (B) 1 : 1000
(C) 1 : 100 (D) 1 : 5000
- 49 Copper sulphate prevent algal growth in water at _____ concentration.
- (A) 2 ppm (B) 1 : 10000
(C) 1 : 1000 (D) 5 ppm
- 50 Which of the following class of dye possess antimicrobial activity ?
- (A) triphenylmethane (B) triethylmethane
(C) trimethylacridine (D) trymethylphemyl

