DF-3000

B. Sc. (Microbiology) (Sem. III) Examination
March/April – 2016
MB-05 : Control of Microorganisms

Time : 2 Hours] [Total Marks : 50

Instructions :

(1) Fill up strictly the details of signs on your answer book.

(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.

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O.M.R. Sheet बनवा अनेक-अनेकी अस्पष्टी सुचारू आपेक्ष
O.M.R. Sheet-ली पाहि अश्चें गरि.

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) Sulphydryl
   (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 phenomenon
   (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 : 10,000,000
(C) 1 : 30,000        (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

[ Contd... ]
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 carabolic 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) trimethlacridine  (D) trymethylphenyl