

BT102 CURRENT MIDTERM-2018 (JUNE)

1. Kingdom Monera contain..... bacteria and archea
2. Slide or specimen is placed on stage of microscope.
3. Which is used for mordant in gram staining? iodine
4. The primary stain is used in acid fast staining is. Carbol fuchsin
5. Syphilis is caused by Treponema pallidum
6. Which is used for transform DNA from bacteria to another? Pili
7. Which is antigenic in nature? O side / teichoic acid in gram positive bacteria.
8. Which is called volutin? Metachromatic Granules
9. The optimal temperature for growth of hyperthermophils is 80degree
10. Which do not grow in presence of oxygen Obligate anaerobes
11. Which is indicated by clear colorless zone surrounding beta hemolysis
12. do not contain cell wall. Mycoplasmas
13. Aristotle though that simpler invertebrates could arise by spontaneous generation.
14. Small pox is introduced Edward jenner. in 1796.
15. Obligate halophiles required high salt concentration for growth 30%.
16. Which is not true when an object is sterilized by ethylene oxide. 1500mg/l
17. Rhodopseudomonas is an oxygenic in nature.
18. study of fungi called... mycology
19. optimal pH for yeast and mold 5-6
20. peripheral proteins are loosely connected plasma membrane
21. During glycolysis ...2. molecule of pyruvic acid produced
22. Carbon structural backbone for living matter
23. Magnetosomes are iron oxide inclusion
24. gram negative bacteria has rings 4
25. nucleoid and ribosomes are formed spore core

26. Monitoring diseases in population Epidemiology
27. Light microscope power 0.2
28. Optimum temperature of psychrotrophs 20-30
29. Apsis is absence of contamination
30. component of lipopolysaccharides 3
31. Acellular organism's are Viruses...
32. Hot air method which of the following are present in certain conditions. 170 c, 2 hr.
33. Ribosomes is composed of Protein and rRNA
34. Cell walls of fungi consist of Chitin
35. Rober hook 1st drawing of microbes 1665
36. Ribosomes function synthesis of protein
37. Involve storage of carbon ,phosphate and other substances in prokaryotes Inclusion bodies
38. In LPS, Core polysaccharide gives structural support
39. Mesophiles bacteria have optimum temperature of about 37c
40. Mycobacterium tuberculosis is an example of obligate aerobes
41. Small dot like colonies of bacteria Punctiform
42. which is not involved in direct count method spectrophotometer
43. which one is basic dye Methylene blue
44. study of microbes microbiology
45. In 1865 pasteur found that silkworm disease is called by protozoa.
46. ETO is supplied in 10-20
47. Rat bite favor is caused by spirium minus
48. From all these show colonies of bacteria except Flagella.
49. Mycobacterium are stains by Acid-Fast Staining:
50. peptide structure meshlike polymer N-acetuleglucosamine and N-Acetylemuramic acid

BT102 MICROBIOLOGY MIDTERM MCQS

Q.1 Microbes also called germs or microorganism are -----to be seen with unaided eye.

A. Small B. Large C. Too small D. Too large

Q.2 Studying microbes is called ----- .

A. Biotechnology B. Microbiology C. Mycology D. Bacteriology

Q3. ----- used to be the main feature prior to the advent of molecular biology.

A. Morphology B. Virology C. Micology D. Microbiology

Q4.. Bacteria and archea are two ----- groups

A. Same B. Different C. Alternate D. Combine

Q5.. Slime mold placed in

A. Plants B. Bacteria C. Eucarya D. Protozoa

Q6. ----- composed only of circular ssRNA.

A. Viruses B. Bacteria C. Virioids D. Virsoids E. Virons

Q7..... are Also called satellite viruses

A. Virosoids B. Prions C. Viroids D. Virons

Q8. ----- are infectious proteins

A. Virosoids B. Prions C. Viroids D. Virons

Q9. Linnaeus in ----- established system of specific nomenclature.

A. 1635 B. 1735 C. 1573 D. 1835

Q10. Each organism has two names .write

ANS.. The genus and specific epithet.

Q11.. Genus is ----- and epithet is -----

A. lowercase , capitalized B. lowercased both C. Capitalized , lowercase D. Capitalized both

Q12. ----- is found in large intestine and ----- is on skin

A. S.aureus, Ecoli B. Ecoli, S.aureus

C. Styphylococcus, Ecoli D. Spirochaete, S.aures

Q13. First pulshed drawing of microbes in -----

A. 1565 B. 1575 C. 1665 D. 1675

Q14. In the presence of ----- bacteria grow and change alcohol to acitic acid

A. Co2 B. O2 C. H2 D. N

Q15. In 1860 Joseph Lister applied ----- as treating surgical wounds and hands sanitizing

A. Benzene B. Phenol c. Alcohol d. Prophenol

Q16. Isolation of bacteria made possible by ----- and -----

ANS; Agar and petridish

Q17. In 1968, ----- proposed the kingdom prokaryotae for bacteria

A. Ernest Hackle b. Edward Chatton c. Robert Murray d. Carl Woese

Q18. In ----- five kingdom classification was proposed by Robert Whittaker

A. 1869 B. 1977 C. 1969 D. 1959

Q19. Bacteria cell wall is made up of

A. Chitin b. Cellulose c. Peptidoglycan d. No cell wall

Q20. Archaea vary from Eubacteria in?

A. tRNA b. rRNA c. mRNA d. DNA

Q21. Protozoa cell wall is made up of

A. Chitin b. Cellulose c. Peptidoglycan d. No cell wall

Q22. ----- also known as mild dews and white rusts

A. Dry molds b. Slime molds c. Water molds d. Protozoans

Q23. Extremely resistant to heat-

A. Viroids b. Virions c. Virusoids d. Prions

Q.23. also known as satellite viruses.

A. Viroids B. Virions C. Virusoids D. Prions

Q24. ----- established the system of scientific nomenclature

A. Ernest Hackle b. Edward Chatton

c. Carl Linnaeus D. Robert Murray

Q25. The issue of spontaneous generation was finally resolved by French scientist ----- in 1861

A. Louis Pasteur b. Lazzaro Spallanzani c. Anton Laurent d. John Needham

Q26. The period from 1857 to 1914 was rightly called as the

ANS: Golden age of microbiology

Q27. In -----, ----- established the causative agent (a protozoan) for silkworm disease

A. 1865, Robert B. 1965, Robert Gram

C. 1865, Pasteur D. 1965, Joseph Lister

Q28. The use of chemical for treatment is called as -----

A. Chemotherapy b. Cognitive therapy c. Psychotherapy d. Counseling

Q29. In 1910 Paul Ehrlich made the 1st chemotherapeutic agent ----- for treating human against syphilis

A. Ampicillin b. Clindamycin c. **Salvarsan** d. Chloramphenicol

Q30. In ----- Alexander Fleming discovered penicillin from fungus *Penicillium chrysogenum*

A. 1910 B. 1918 **C. 1928** D. 1938

BT 102 6 TO 10

Qno1. Study of fungi is called

A. Microbiology b. Fungology c. Phycology d. **Mycology**

Q2. Different between basic and applied microbiology

Ans. Basic : biology of microbes

applied: practical problems (diseases, wastewater Rx; food spoilage etc)

Q3. ----- monitoring diseases in population and detection of outbreaks and developing epidemics

A. Medical microbiology b. **Epidemiology** c. Immunology d. Food microbiology

Q4. Use of microbes or their enzymes for large scale production of biomolecules

A. Medical microbiology b. Epidemiology c. Food microbiology d. **Industrial microbiology**

Q5. Write any two names that we study in microbiology as a study model

A. E. coli b. T4 c. Lambda phages

Q6. Which part of compound light microscope directs the light through the specimen

A. Ocular lens (eye piece) b. Illuminator c. Objective lenses d. **Condenser**

Q7. Objective lens magnification low ----- and high -----

A. 5x, 10x B. 10x, 20x **C. 20x, 40x D. 10x, 40x**

Q8. Ability of medium to bend the light -----

A. Refractive index b. Resolution c. Magnification d. Staining

Q9. What is resolution?

ANS; Resolution is the ability of the lenses to distinguish between two closely lying objects as separate. See the accompanying diagram for visual concept of resolution. o Light microscope resolving power is 0.2 μm .

Q10. Light microscope resolving power is

A. 0.1 μm **B. 0.2 μm** C. 0.3 μm D. 0.4 μm

Q11. In fluorescent microscopy uses fluorochromes and ----- light as illumination source

A. Infrared b. **UV** c. X-ray d. Gamma

Q12. What do you know about fluorochromes?

Ans. Substances that absorb short wavelength of light and emit longer wavelength (visible)

Q13. Using a ----- loop , a clong or a drop of broth culture can be smeared into a thin film on a glass slide for making smear

A.Python b.Radial c.Arch d.Platinum

Q14. While drying the smear ----- can be used

A.Methyl alcohol b.Methylene blue c.Methyl butarate d.Ethyl alcohol

Q15. A colored ion is called

A.Chromatogram b.Chromatograph c.Chromatophore d.Dye

Q16.The colour is in negative ion

A.Basic dye b.Acidic dye c.Sulphur dye d.Mordant dyes

Q17. ----- dyes are most commonly used for bacteria

a.Basic b.Acidic c.Both

Q18. ----- is used in basic dyes : positive staining

A.Eosin b.Acid fuchsin c.Nigrosin d.Malachite green

Q19. Different between simple and differential staining?

Ans. Simple: only one stain is used methlyne blue staining.

Differential: A couple of stain used gram staining.

Q20. Capsular and endospore staining are

A. Simple b.Differential c.Special d.Normal

Q21. Gram staining used by hans chistian gram in -----

A.1848 B.1884 C.1948 D.1984

Q22.After staining and washed with alcohol gram negative bacteria appear as

A.Crystal violet b.Blue c.Red d.Colourless

Q23. Peptidoglycan layer is thicker in ----- bacteria and Cu-I is retained

A.Gram positive b.Gram negative c.Both

Q24. ----- oil is used to eliminate the bending of light in microscope

A.Immersion b.Caster c.Sesamum d.Cedar wood

Q25. Describe various types of microscope?

Ans.A. Darkfield microscopy B.Phase contrast microscopy C.Flourescent microscope

D.Transmission electron microscopy E.scanning electron microscopy

Q26. Example of negative stains :acidic dyes

A. Eosin b.Acidic fuchsin c.Nigrosin d.All of above

Lecture no 11 to 15

Q1. If glycolyx is loosely attached to the cell it is called -----

- a. Capsule b. Fimbriae c. **Slime** d. Biofilm

Q2. ----- are circular or spherical in shape

- a. Spiral b. Coccus c. Bacillus d. Staphylococcus

Q3. A resistant dormant structure within a cell

- a. **Endospore** b. Exospore c. Nucleus d. Nucleoplasm

Q4. Some bacteria such as ----- have a waxy material in their cell wall

- a. Eubacteria b. Spirochaete c. **Mycobacteria** d. Cyanobacteria

Q5. Spirochete are ----- bacteria

- a. Vibrio b. **Spiral** c. Coccus d. Bacillus

Q6. In cocci, when division is in 3 planes it is called

- a. Streptococci b. Tetrads c. **Sarcinae** d. Staphylococci

Q7. When cell is neither bacillus nor coccus and it is intermediate between two extremes

- a. Streptobacilli b. Streptococci c. **Coccobacillus** d. Staphylococcus

Q8. ----- composed of polysaccharide and polypeptide or both

- a. Pilli b. Flagella c. Fimbriae d. Glycocalyx

Q9. Glycocalyx is also part of ----- that bacteria make to attach to surface

- a. **Biofilm** b. EPS c. Slime d. Capsule

Q10. ----- distributed over the entire cell

- a. Atrichous b. **Peritrichous** c. Polar d. Multitrichous

Q11. Mycobacteria are ----- not easy to stain

- A. Hydrophobic b. Hydrophilic c. **Lipophilic** d. Lipophobic

Q12. DNA is associated with -----

- A. Nucleolus b. **Histones** c. Lysosomes d. Both b, c

Q13. Write 3 basic shapes of bacteria

Ans: A. Coccus

B. Bacillus

C. Spiral

Q14. Helical but rigid in shape

- A. Coccus b. Vibrio c. **Spirillum** d. Spirochete

Q15. ----- causes rat bite fever

- A. Spirochete b. **Spirillum minus** c. Leptospira d. Borrelia burgdorferi

Q16. ----- become single after division

- A. Coccus b. Bacillus c. **Spiral** d. Vibrio

Q17. 3 shapes of arches

Ans: a. star shaped

B. Flat rectangular

C. Triangular

Q18. ----- contain hydrolytic enzymes and binding proteins for nutrient processing and uptake

- A. Ribosomes b. Gas vacuoles C. Inclusion bodies d. **Periplasmic space**

Q19. ----- is a viscous and gelatinous secretion that surrounds the cells

- A. Glycocalyx** b. Fimbriae c. Slime d. EPS

Q20. ----- antigen for serovar identification in G-neg bacteria

- a. A b. I c. **H** d. G

Q21. If glycocalyx is organized and firmly attached to the cell it is called

- A. Slime b. Biofilm c. **Capsule** d. Endospore

LESSON no 16 to 20

1. Axial filaments are also called

- a. exoflagella b. Endospore c. **Endoflagella** d. Flagellum

Q2. Axial filaments are only present in

- a. coccus b. bacillus c. spiral d. spirochetes

Q3. ----- help bacteria to attach to surface before they can secrete biofilm

- a. Flagella b. Endospore c. **Fimbriae** d. Slime

Q4. ----- are hair-like structures composed of peptidoglycan usually one to ten in number

- A. Flagella b. Glycocalyx c. **Pili** d. Fimbriae

Q5. Peptidoglycan is ----- in G. neg cells

- a. Thick **b. Thin** c. Flexible d. Hard

Q6. Peptidoglycan is basically composed of NAG and NAM which are arranged from

----- molecules

- a. 5-45 b. 10-55 **c. 10-65** d. 10-75

Q7. G-positive cell wall contains

- a. Teichoic acid** b. Mycolic acid

Q8. Lipopolysaccharide (LPS) molecules consist of ----- parts

- a. 2 **b. 3** c. 4 d. 5

Q9. Plasma membrane of ----- has sterols which provide rigidity to the membrane

- a. Mycoplasma b. G-negative bacteria c. pseudomurein d. gram positive bacteria

Q10. Write any three functions of cell membrane

- a. Selective permeable barrier
b. passive and active transport
c. respiration in microbes
d. photosynthesis in microbes
e. lipid synthesis

Q11. How many types of membrane proteins

- A. 2 b. 3 c. 4 d. 5

Q12. ----- proteins are found hanging outside the membrane

- a. integral b. peripheral c. ATPase d. clathrin

Q13. ----- proteins are inserted in the membrane or embedded in the membrane

- a. Intrinsic b. Extrinsic c. Integral d. peripheral

Q14. Cells called ----- organisms are naturally found without the cell wall

- a. protoplast b. spheroplast c. staphylococcus d. L-form

Q15. If cell is G-positive and cell wall is removed the cell

- a. protoplast b. spheroplast c. staphylococcus d. L-form

Q16. In some archaea the cell wall is composed of glycan polymers called

- a. mycoplasma b. exoplasma c. pseudomurein d. murein

Q17. ----- breaks the sugar – derived backbone

- a. protoplast b. lysozyme c. L-form bacteria d. mycoplasma

Q18. LPS is an abbreviation of?

- Lipo polysaccharide

Q19. Gram –positive bacteria produce toxin

- a. endo b. exo c. endo and exo d. botulinum

Q20. ----- have cell wall that contains a glycosylated proteinaceous surface layer S-layer

- a. G-positive bac b. G- negative bac c. virus d. archaea

Q21. ----- proteins are not static in position can diffuse laterally and change position in the membrane

- A. Integral b. intrinsic c. extrinsic d. peripheral

LESSON NO 21 TO 25

1. When cells are placed in ----- solution, water moves out of the cells, cause swelling of the cell and result in lysis

A. Hypotonic B. Isotonic C. Hypertonic d. Peritonic

2. Passive movements is divided into ----- group

a. 5 b. 2 c. 3 d. 4

3. How many kind of transporter are known Write names

Ans 1..non-specific transporter 2. Specific transporter

4. ----- is diffusion through a semi permeable that allows some molecule to pass through but others na to pass through

a. Active movement b. Passive movement c. Tonicity d. Osmosis

5. ----- proteins are called transporter or permeases

a. Peripheral b. intrinsic c. Integral d. extrinsic

6. O₂ and CO₂ are example of

a. Osmosis b. Simple diffusion c. Facilitated diffusion d. Active movement

7. If cells are placed in hypertonic solution, water will come out of cells and shrink resulting in

a. Plasmolysis b. Karyogemy c. Diffusion d. translocation

8. Bacteria have circular -----, although there are few that have linear dsDNA

A. ssRNA B. dsRNA C. ssDNA D. dsDNA

9. Streptomycin attach to -----

a. 20s b. 30s c. 40s d. 50s

10. ----- composed of proteins + ribosomal RNA

A. Nucleoid B. Gas vacuoles C. Ribosomes D. Plasmid

11. ----- are reserved deposite of nutrients

a. Ribosomes b. Inclusion c. Gas vacuoles d. Magnetosomes

12. What are metachrometic granules

a. Metachromatic Granules also called volutin, they stain red with certain dyes such as methylene blue. That is why they are called metachromatic (stain in different color as methylene blue gives blue color but the color on these granules is red)

13. ----- are inculsion of iron oxide act like magnet present in g negative bacteria

a. Polysaccharide granules b. Metachromatic granules c. gas vacuoles d. magnetosomes

14. Write endospore various parts/ structure

ANS; Exosporium: A thin delicate outermost covering of the spore

• Spore coat: 2nd layer underneath the exosporium. It is thick and composed of several protein layers.

- **Cortex**: It is the 3rd layer from outside in. It has peptidoglycan in it.
- **Spore cell wall or core wall**: Surrounds the protoplast or spore core

Spore core: Contains nucleoid and ribosomes

15.----- contain nucleoid and ribosome

- a.Exosporium b.Spore coat c.Cortex **d.Spore core**

17.----- is a special method used for killing spore in solution that can get degraded at high temperature

- a.Tyndallization** b.subtilization c.Aseptic d.disinfection

19.What is oxidation reduction reaction?

ANS.:Oxidation = loss of electrons, or gain of oxygen, or loss of hydrogen

Reduction = gain of electrons, or loss of oxygen, or gain of hydrogen

20. Most biological oxidation involve the loss of hydrogen atom called----- reactions

- a.Oxidation b.Reduction **c.Dehydrogenation** d.Phosphorilation

21.In ----- electron captured from food are transferred to coenzyme

- a.Metabolism b.Substrat level phosphorylation
c.Oxidative phosphorylation d.Photo phosphorylation

22.Oxidation of acetyle coA and co2

- a.Glycolysis **b.The krab cycle** c.ETC d.Fermentation

23.If in the ETC, the final electron acceptor is oxygen it is called an

- a.Glycolysis b.Fermentation **c.Aerobic respiration** d.Anaerobic respiration

LESSON NO 26 TO 30

1. In-----Final electron acceptor is inorganic substance other then O2

- a.Fermentation b.Catabolism **c.anaerobic respiration** d.Aerobic respiration

2. If the electrons are derived from the light , the organism are called

- a.Autotrophs b.Heterotrophs c.Chemotrophs
d.Phototrophs

3.If the organisms use various chemicals as a source of carbon.

- a.Autotrophs **b.Heterotrophs** c.Chemotrophs d.Phototrophs

4.Rhodopseudomonas is example of

- a.Photoheterotrophs** b.Chemotautotrophs c.Photoautotrophs d.Chemotheterotrophs

5.What are the physical growth requirement for microorganism?

Ans.a.Temperature B. pH C.Osmotic pressure

6. Organisms are basically classified into ----- groups based on the temp requirements:

- a. One b. Two **c. Three** d. Four

7. Cold loving microbes are

- a. Psychrophiles** b. Mesophiles c. Thermophiles d. heterophile

8. Most organisms grow at pH between ----- and -----

- a. 4.5 and 5.5 **b. 6.5 and 7.5** c. 7.5 and 8.5 d. 7.5 and 6.5

9. Molds and yeast grow At pH of ----- to -----

- a. 6 to 5 b. 4 to 5 **c. 5 to 6** d. 5 to 4

10. Obligate halophiles require very high salt concentration to grow. up to

- a. 15% b. 20% c. 25% **d. 30%**

11. If cells are placed in hypertonic solution, water leaves the cells shrinking the cells and damaging them. This process is called -----

- a. Asepsis b. Fermentation c. Disinfection **d. Plasmolysis**

12. ----- use carbon from energy sources such as fats carbs and proteins

- a. Chemoautotrophs **b. Chemoheterotrophs** c. Photoautotrophs d. Both a and c

13. How bacteria get nitrogen?

Ans. By decomposing protein From NH_4^+ ions

From nitrates use gaseous N_2

14. ETC generates ----- ATP molecules that use O_2 in the final electron acceptor

- a. 26 or 28 **b. 36 or 38** c. 26 or 36 d. 28 or 38

15. Oxygen must be present for their growth

- a. Obligate aerobs** b. facultative an aerobs c. Obligate an aerobs d. Aerotolerant aerobs

16. ----- organism do not use oxygen and also are not bothered by the presence of oxygen

- a. Obligate aerobs b. facultative an aerobs c. Obligate an aerobs **d. Aerotolerant aerobs**

17. *Mycobacterium tuberculosis* is an example of

- a. Obligate aerobs** b. facultative an aerobs c. Obligate an aerobs d. Aerotolerant aerobs

18. These organism do not use oxygen, they can not grow in the presence of oxygen

- a. Obligate aerobs b. facultative an aerobs **c. Obligate anaerobs** d. Aerotolerant aerobs

19. Toxic compounds generated by oxygen are

Ans 1. Singlet oxygen

2. Super oxide radical or super oxide anions

3. Peroxide

4. HYDROXYL RADICAL

LESSON NO 31 TO 35

1. A nutrient material that supports the growth of microbes in the lab is called a -----

- a. Culture **b. Culture medium** c. Inoculum d. Selective medium

2. Microbs introduce into a culture medium that initiate growth of organism

- a. Complex medium b. Selective medium

- c. Differential medium **d. Inoculum**

3. there are ----- basic types of media

- a. 2** b. 3 c. 4 d. 5

4. Agar liquefies at 100c and solidifies at -----c.

- a. 20 b. 30 **c. 40** d. 50

5. A culture made on angled surface in a tube is called a -----

- a. Solid culture **b. Slant culture** c. Pure culture

d. Complex culture

6. Bacterial colonies threads running in all direction

- a. Punctiform b. Rhizoid **c. Filamentous** d. Spindle shaped

7. In ----- elevation bacterial colony over all convex but raised in the middle

- A. Umbonate** b. Pulvunate c. Convex d. Raised

8. When the ingredients of the growth medium are not exactly known the medium is called-----

- a. Chemical medium **b. Complex medium** c. Inoculum d. Culture medium

9. A medium that supports the growth of most of bacteria is called -----

- a. Reducing medium b. Selective medium **c. General purpose medium** d. Differential medium

10. Blood agar is an example of -----

- a. Reducing medium b. Selective medium c. General purpose medium **d. Differential medium**

11. ----- is a special medium for growing obligate anaerobes contain reducing agent (sodium thioglycolate)

- a. Inrichment medium **b. Reducing medium** c. Differential medium d. Selective medium

12. ----- was the first to develop pure culturing technique

- a. Robert Koch** b. Robert hook c. Robert brown d. Macconkey

13. How many phases in growth curve ?

- a. 2 b. 3 **c. 4** d. 5

14. During ----- phase organism multiply exponentially are logarithmically

- a. Lag phase b. Death phase **c. Log phase** d. Stationary phase

15. Difference between sterilization and disinfection ?

Ans: **Sterilization: Removing all microbial life including spores (complete elimination)**

Disinfection: Removing pathogen significantly (not complete elimination)

16. In measurement of microbial growth Coulter counter is in ----- way

a. Mechanical **b. Electronic** c. Chemical d. Serial

17. Removing microbes from a limited area (injection site)

a. Bacteriostasis b. Antisepsis c. Sanitization **d. Degerming**

18. Liquid medium in a closed vessel. No fresh medium, nutrient depleted, waste product increased

a. Pure culture b. Slant culture **c. batch culture** d. Inoculum

19. Streak plate method is a method of

a. Pure culture b. Slant culture c. batch culture d. Inoculum

20. MacConkey agar is an example of

a. Enrichment medium b. Reducing medium c. Differential medium **d. Selective medium**

Session 36 to 40

Q. no 1; In decimal reduction time, also called....., Time required to kill 90% of microbes at a given temperature.

a. H value b. C value **c. D value** d. G value

Q. no 2; Lowest temperature at which all cells in a culture are killed in 10 min called

A. Thermal death time B; Thermal death method C; Thermal death temperature **d. Thermal death point**

Q. no 3; Incineration is a

A. Dry heat method B; Moist heat method C; Mechanical method D; Chemical method

Q. NO4; Time (minimum) during which all cells in a culture are killed at a given temperature

A. Thermal death time B; Thermal death method C; Thermal death temperature d. Thermal death point

Q. NO5; X-ray is an example of

A. Particle radiations B; neutron radiations **C. Ionizing radiations** D; Non ionizing Radiation

Q. no 6; HEPA removes microbes >

A. 3.0um B. 0.22um C. 22.0um **D. 0.3um**

Q. no 7; is a strong alkylating agent that kills by reacting with functional groups of DNA and proteins to block replication and enzymatic activity

a. Ethylene oxides b. Amphoteric oxide c. Sulphur trioxide

Q. no 8; Hexachlorophene, triclosan, disrupts plasma membrane is an example of

a. Biguanides **b. Bisphenols** c. Halogens d. Chlorine

Q.no9 Decimal reduction time will ----- from temperature to temperature for a given species of microorganism

- a. Same b. Dependent c. Vary d. Change

Q.no10;; What are the factors influencing death rate of microbes

Ans; Number of microbes Environment Exposure

Microbial characteristic

Q.no11;; Wavelength longer than ----- nm fall in to known ionizing radiation

- a. 1 b. 2 c. 3 d. 4

Q.13;; A combination of iodine with an organic molecule from which iodine is released slowly (example is betadine)

- a. Cresol b. Biguanide c. Iodophor d. Chloramine

Q.no14;; When chlorine gas is mix with water at forms ----- which has germicidal activity

- a. chloride b. Hypochloride c. Formline d. Choline

VU BIOANIMALS