

V U A I ² E X

Bt102 objective notes for mid term

Subject: Bt102

CR: Hafiza Mubeen

VU Medical Zone (biotechnologists)

**Admins: Hafiza Mubeen,
Muhammad Nouman, Tasha Khan,
Iqra Shaheen**

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From topics 1 to 12

- 1) Microbes are also called ____?
 - a) germs
 - b) viruses
 - c) microorganisms
 - d) both a and c
- 2) Studying of microbes is called ____?
 - a) Mycology
 - b) Microbiology
 - c) Immunology
 - d) Epidemiology
- 3) Which of the following is used to be the main feature prior to the advent of molecular biology.
 - a) Morphology
 - b) Bacteriology
 - c) Mycology
 - d) Microbiology
- 4) _____ are two different groups
 - a) Bacteria and archea
 - b) Bacteria and fungi
 - c) Archea and fungi
 - d) Viruses and bacteria
- 5) What are the basis of classification?

Similarities among them, Morphology used to be the main feature prior to the advent of molecular biology, Biochemical similarities, Genetic similarities & Evolutionary relationships
- 6) Which one is an example of protists in eucarya?
 - a) Slim molds
 - b) Protozoa
 - c) Algae
 - d) All of these
- 7) **Why do we Classify Organisms?**

Studying them becomes convenient, Easy Identification, Easy to establish relationship between organisms & Evolutionary relationships can be established
- 8) **What are Three Domain Classification (1977)**

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- a) Bacteria, Archea, Eucarya
b) Slim molds, Protozoa, Algae
c) Eucarya, Slim molds, Protozoa
d) Archea, Eucarya, Slim molds
- 9) Unicellular form of fungi is called _____ and Multicellular form of fungi is known as _____?
- a) Yeast, mold
b) Yeast, mushroom
c) Mold, mushroom
d) Yeast, mold or mushroom
- 10) _____ composed only of circular ssRNA.
- a) Bacteria
b) Virioids
c) Viruses
d) Virons
- 11) _____ need helper viruses for replication and encapsidation and Also called satellite viruses
- a) Bacteria
b) Virioids
c) Virusoids
d) Virons
- 12) Which one of the following is an infectious proteins
- a) Prions
b) Viroids
c) Bacteria
d) Virusoids
- 13) In naming organisms Linnaeus established system of specific nomenclature in _____?
- a) 1786
b) 1996
c) 1536
d) 1735
- 14) What two names use for Each organism in **Binomial Nomenclature**?
The genus and specific epithet.

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- 15) Scientific Names Are italicized or underlined. The genus is _____ and the specific epithet is _____?
- a) Lowercase, Capitalized
 - b) Capitalized, lowercase
- 16) *Escherichia coli* Honors the discoverer, _____ it Describes the bacterium's habitat—the large intestine, or colon.
- a) Robert hook
 - b) Theodor secwaan
 - c) Theodor Escherich
 - d) franstoro
- 17) Robert Hooke First pulished drawing of microbes refered in _____?
- a) 1665
 - b) 1675
 - c) 1765
 - d) 1857
- 18) Antony van Leeuwenhoek was First to publish extensive & accurate observations of microbes He called them _____?
- "animalcules"
- 19) _____ observations of microbes renewed the controversy referes to _____
- a) Leeuwenhoek
 - b) John Needham
 - c) Louis Pasteur
 - d) All of these
- 20) John Needham Boiled extracts of hay or meat can give rise to microorganisms He boiled mutton broth and then tightly stoppered the bottles in _____?
- a) 1875
 - b) 1748
 - c) 1859
 - d) 1487
- 21) _____ tells Microbes are present in the air. They can contaminate sterile solutions in _____?
- a) Louis Pasteur, 1861

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- b) John Needham , 1748
c) **Robert Koch, 1878**
d) **Edward Jenner, 1796**
- 22) In the presence of _____ bacteria grow and change alcohol to acetic acid
a) H₂
b) N₂
c) **O₂**
d) Co₂
- 23) What discoveries were made in the golden age of microbiology?
A lots of discoveries in microbiology with Pasteur's work In about 60 years, Microbiology became a real science. Spearheaded by Pasteur and Koch Disease agents identified Role of Immunity established Chemical activities of microbes studied Improved culturing techniques introduced Vaccines Surgical techniques developed
- 24) In 1860 Joseph Lister applied _____ as treating surgical wounds and hands sanitizing
a) **Phenol**
b) Benzene
- 25) Five kingdom classification was proposed by Robert Whittaker in _____
a) 1799
b) 1856
c) **1969**
d) 1987
- 26) Alexander Fleming discovered penicillium from fungus Penicillium chrysogenum in _____?
a) 1987
b) **1928**
c) 1996
d) 1978
- 27) Cell wall of Bacteria is made up of _____?
a) **Peptidoglycan**
b) Glycans
c) Peptidoglycines
d) cellulose
- 28) _____ are also known as mild dews and white rusts.
a) Slime molds
b) **Water molds**

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- 29) System of scientific nomenclature established by____?
- Robert hook
 - Ernest hackel
 - Carl linneaus
 - Loice pasture
- 30) In 1861 The issue of spontaneous generation was resolved by french scientist_____ named as?
- Louis pasteurs
 - Jhon needham
 - Robert hook
 - Ernest hackel
- 31) In_____, Pasteur found that silkworm disease caused by a protozoan
- 1865
 - 1896
 - 1768
 - 1765
- 32) The use of chemical for treatment is called as____?
- chemo therapy
- 33) Study of fungi is called _____?
- Mycology
- 34) **What is Bacteriology?**
Study of bacteria. Its Deals with:
- Isolation
 - Identification
 - Characterization
 - Classification
- 35) what is resolution?
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 um.
- 36) Mention here the Parts of Compound Light Microscope?
- Illuminator: a light source
Condenser: Directs the light through the specimen
Objective Lenses: Close to the specimen
Ocular Lens (Eyepiece): Close to the eye
- 37) What is total magnification?
Magnification of objective lens x magnification of ocular lens

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38) _____ are mostly low Objective lenses?

- a. 10 X
- b. 20 X
- c. 30 X
- d. 40X

39) _____ are mostly high Objective lenses?

- a. 10 X
- b. 20 X
- c. 30 X
- d. 40X

40) Low magnification power is _____ and Oil immersion power is _____?

- a. 100,1000
- b. 1000, 100
- c. 10, 100
- d. 100, 10

41) Ability of a medium to bend the light is called ?

- a. Magnification
- b. Refractive Index
- c. Immersion
- d. Condenser

42) In refractive index Light rays move in a straight line through a single medium. To _____ contrast, we stain the specimen?

- a. Increase
- b. Decrease
- c. Stop
- d. Make fast

43) Light microscope resolving power is _____ μm . n = refractive index, 1.5 for immersion oil.

- a. 0.2
- b. 1.0
- c. 0.5
- d. 2.0

44) Ordinary light microscope, Stained images are used, and Can resolve _____ objects?

- a. 100 nm

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- b. 200 nm
c. 300 nm
d. 400 nm
- 45) What are the Types of Microscopes?
Darkfield microscopy, Phase contrast microscopy, Fluorescent microscopy, Transmission electron microscopy, Scanning electron microscopy
- 46) Darkfield Microscopy used for _____?
a. darkfield condenser having an opaque disk
b. unstained specimens suspended in liquids
c. Light rays in phase or out of phase
d. Both a and b options are correct
- 47) In _____ Light rays can be in phase or out of phase?
a. Darkfield microscopy
b. Phase Contrast Microscopy
c. Fluorescent microscopy
d. Scanning electron microscopy
- 48) A host of microscopes can be used to observe the microbes for their morphology _____ staining.
a. with
b. without
c. Both
d. None of these
- 49) What is staining?
It is just coloring with a dye.
- 50) What are the Advantages of Staining?
Increases visibility of microbes, Shape, size and arrangements, Purity or contamination of a culture, Differentiation and classification of microbes, Various parts of bacteria can be detected with staining
- 51) How to make a smear?
Using a platinum loop, a colony or a drop of broth culture can be smeared into a thin film on a glass slide for making a smear.
Fixing the smear to the slide: The specimen is spread into a thin film (smear). Smear is air-dried. Smear is fixed (attached) to the slide before

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staining. Heating the slide is one way of fixing the smear. Methyl alcohol can be used.

Fixing a smear:

Physically attach the specimen onto the slide To preserve internal and external structures in place

Physical method: Heat

Chemical Methods: Ethanol or formaldehyde Stain is applied and then washed off with water. The slide is air dried or blotted. Staining a smear:

52) Salts composed of a -ive & a +ive ion is called ____?

- a. Smear
- b. Stain
- c. Chromophore
- d. Resolution

53) What is difference b/w basic and acidic dye?

Basic dye: The color is in the positive ion.

Acidic dye: The color is in the negative ion.

54) Bacteria are negatively charged at pH ____?

- a. 2
- b. 8
- c. 6
- d. 7

55) Which of the following is example of Basic Dyes Positive Staining?

- a. Crystal violet, safranin
- b. Methylene blue, safranin
- c. Malachite green, Safranin
- d. All of these options

56) Which of the following is an example of Acidic Dyes Negative Staining?

- a. Eosin
- b. Acid fuchsin
- c. Nigrosin
- d. All of these

57) In Simple staining ____ stain/stains is used. Example Methylene Blue

- a. One

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- b. Four
 - c. Six
 - d. Ten
- 58) Differential stains react differently with different kinds of bacteria. Most common is Gram Staining developed by ____?

- a. Chief bogus
- b. Hans Christian
- c. Robert Downey
- d. H. Shelley

- 59) Crystal violet and iodine make a complex in the ____?

- a. Cytoplasm
- b. Nucleus
- c. Chromosome
- d. Mitochondria

- 60) Prokaryotes and eukaryotes are chemically ____?

- a. Different
- b. Similar

From topics 13 to 16

- 61) Prokaryotes are Unicellular organisms like Bacteria & Archea. Although, look similar, their chemical composition is different. Majority of prokaryotes are ____?

- a) Bacteria
- b) Archea
- c) Bacteria & Archea
- d) viruses

- 62) Basic Shape of bacteria is ____?

- a) Cocci
- b) Bacilli
- c) Spirals
- d) All of these

- 63) What are Basic Spiral Shapes of bacteria?

Vibrio: curved rods

Spirillum: Helical but rigid

Spirochete: Helical but flexible Move by axial filaments

- 64) *Spirillum minus* causes rat bite fever ____ wide and ____ long.

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- a) 0.2 μm , 3 -5 μm
 - b) 3 -5 μm , -0.2 μm
 - c) 0.4 μm , 3 -6 μm
 - d) 1.2 μm , 4 -5 μm
- 65) Spiral Spirochete is Helical but flexible it Move by axial filaments their Size is ____ μm long ____ μm wide?
- a) 250, 0.1-0.7
 - b) 5, 0.1-0.9
 - c) 5 & 250, 0.1-0.6
 - d) 6.1, 0.6

- 66) What are the Arrangements of Bacilli?
Bacilli, Diplobacilli & Streptobacilli

- 67) Which one Divided in 3 planes of Bacilli
- a) Sarcinae
 - b) Streptobacilli
 - c) Diplobacilli
 - d) All of these

- 68) Which one Divided in multiple planes
- a) Sarcinae
 - b) Streptobacilli
 - c) Diplobacilli
 - d) All of these

- 69) Explain the Shapes of Archea?
- Star shaped- genus Stella
Rectangular flat- genus Haloarcula
Triangular

- 70) EPS stands for?
- a) Efficient polymeric substance
 - b) Extracellular polymeric substance
 - c) Extra polynumeric system
 - d) Epilepsy puss syndrome

- 71) Glycocalyx as ____ Protects cells within it. Facilitates communication amongst cells

- a) Protector
 - b) Biofilm
 - c) Facilitater
 - d) polymeric substance
- 72) ____ Long filamentous structure that propels bacteria?
- a) Chrorella
 - b) Algae

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- c) Flagellum
d) Basillus
- 73) How bacteria classified based on flagella?
Atrichous: No flagellum
Peritrichous: Distributed over the entire cell
Polar: Monotrichous
- 74) _____ Used for attachment to surfaces or epithelial cells

Singular _____?

- a) Coccus, cocci
b) Fimbriae, Fimbria
c) Bassilus, bassili
d) Flagellum, Flagela

From topics 17 to 20

- 75) Cell wall is the most important structure in prokaryotes that provides _____?
a) Shape of bacteria
b) Protection from osmotic lysis
c) Pathogenicity
d) All of these
- 76) In _____ A Danish microbiologist _____ explain the Gram staining with difference of Gram -ive and +ive?
a) 1988, Graham
b) 1996, Joddy Hopps
c) 1898, Chief Bogo
d) 1899, Nickoloudus john
- 77) _____ TEM means?
Transmission electron microscopy
- 78) _____ TEM revealed true difference of Peptidoglycan that its _____ in G +ive cells & _____ in G -ive cells
a) Thin, Thick
b) Thick, Thin
c) Motile, Non motile
d) Non Motile, Motile
- 79) Name the two suger molecules that Peptidoglycan Structure is made up of?
N-acetylglucosamine & N-acetylmuramic acid
- 80) The Two suger molecules of Peptidoglycan Structure form the _____ of the cell wall?

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- a) Shape
 - b) Thickness
 - c) Arrangement
 - d) **Back bone**
- 81) N-acetylglucosamine & N-acetylmuramic acid Molecules range from ____ molecules all together.
- a) 5 – 75
 - b) **10 – 65**
 - c) 20 – 80
 - d) 5 – 65
- 82) Penicillin interferes with ____ bridges
- a) Inter
 - b) **Cross**
 - c) Linked
 - d) All of these
- 83) LPS is abbreviated by ____?
- a) Leuco primary saccharide
 - b) **Lipopolysaccharide**
 - c) Linked pencillin system
 - d) Leucopolysacchrude
- 84) Which of the following is a component of LPS ____?
- a) Lipid A
 - b) Core polysaccharide
 - c) O side chain
 - d) **All of these**
- 85) In LPS the Lipid A is like an endotoxin which results in ____?
- a) Fever
 - b) Vasodilation
 - c) Shock
 - d) **All of these**
- 86) What is function of Core polysaccharide & O side chain in LPS?
Core polysaccharide gives Structural support & O side chain is just like an Antigenic like teichoic acid in gram positive bacteria
- 87) In gram sataining gram +ive bacteria gives ____ color & -ive gives ____ color
- a) Red, violet
 - b) Pink, blue
 - c) Red, pink
 - d) **Both a and b**
- 88) Describe Comparison of G-ive and G+ive Bacteria?

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1	Characteristics	Gram Positive	Gram Negative
2	Gram reaction	Retain CV dye	Decolorized
3	Peptidoglycan layer	Thick	Thin
4	Teichoic Acid	Present	Absent
5	Periplasmic Space	Absent (generally)	Present
6	Outer membrane	Absent	Present
7	LPS	Virtually none	High
8	Lipid and lipoprotein contents	Low	High
9	Flagellar structure	2 rings	4 rings
10	Toxin Produced	Exotoxins	Exo and endotoxins
11	Susceptibility to penicillin	High	Low
12	Overall resistance	High	Low

89) Gram positive cell wall is _____ as compared to the gram negative cell wall?

- a) Thick
- b) Thin
- c) Motile
- d) Non motile

90) Lysozyme _____ the sugar-derived backbone?

- a) Sustain
- b) Breaks
- c) Grow up
- d) Cultivate

91) Some bacteria lack cell wall are called as _____?

- a) Lysozyme
- b) Protoplast
- c) L-form bacteria
- d) All of these

92) Which of the following is a function of cell membrane?

- a) Photosynthesis

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- b) Lipid synthesis
 - c) Cell wall division
 - d) All of these
- 93) Explain the Types of Membrane Proteins?
Peripheral Proteins are Loosely connected to the membrane. They are Soluble in water
Integral proteins are Imbedded in the membrane. They are also Insoluble in water & Amphipathic in nature
Some act as receptors
- 94) which of the following is the best example of Photosynthesis by Cell Membrane?
a) Chromatophores
b) Thalakoids
c) Both a or b
d) None of these
- ## From topics 21 to 26
- 95) By Moving with the concentration gradient the Substances move from area of _____ concentration?
a) Low concentration to high
b) High concentration to low
c) High concentration to very high
d) Low concentration to very low
- 96) _____ are the Movement against the concentration gradient From low concentration to high concentration & Requires energy (ATP)
a) Active Movement
b) Passive Movement
c) Specific Movement
d) Nonspecific Movement
- 97) In Facilitated diffusion Integral proteins as channels or carriers are Called _____?
a) Transporters
b) Permeases
c) Polemerases
d) Both a or b options
- 98) Nonspecific transporters are Ions while specific transporters Change in shape for example _____?

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- a) Carbohydrates
 - b) Vitamins
 - c) Lipids
 - d) Proteins
- 99) In Facilitated diffusion ___ molecules degraded by extracellular enzymes ___ molecules then bind transporters
- a) Small, Larger
 - b) Large, Smaller
- 100) Water molecules can pass through lipid bilayer by simple diffusion or through _____?
- a) Aquaporins
 - b) Artificial pipes
 - c) Channels
 - d) All of these
- 101) Define Osmotic Pressure?
- A Pressure required to prevent the movement of water into a solution containing some solute.
- 102) Difference b/w Passive diffusion & active diffusion?
- Passive: No ATP used, Conc. Gradient dependent like Simple diffusion, Facilitated diffusion
- Active diffusion: ATP used, Go against concentration gradient like Active transport, Group translocation
- 103) In active movement requiring ATP Which Nutrients move from lower conc to higher conc?
- Na⁺, K⁺, H⁺, Ca²⁺, and Cl⁻, Amino acids, Simple sugars
- 104) How much water used in prokaryotic cytoplasm?
- a) 30%
 - b) 50%
 - c) 80%
 - d) 96%
- 105) Gas Vacuoles are Aquatic bacteria that Maintain buoyancy for obtaining _____?
- a) Nutrients
 - b) O₂
 - c) Light
 - d) All of these

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- 106) It Surrounded by invaginations of plasma membrane and Present in G negative bacteria Act like magnet Decompose H₂O₂
- a) Gas vacuoles
 - b) Magnetosomes
 - c) Metachromatic Granules
 - d) Volutin

- 107) What are endospores?

Endospores are Specialized resting cells Highly durable, dehydrated forms of bacteria. They Formed inside a bacterium Survive extremes of temperature. they are Lack of water, Radiation & Toxic environment

- 108) Spore is a specialized cell Forms when nutrition gets ____?
- a) Duplicated
 - b) Deleted
 - c) Depleted
 - d) All of these

- 109) Give some Examples of coenzymes?

– NAD⁺, – NADP⁺, – FMN and FAD

- 110) In Oxidative Phosphorylation the Electrons transferred to ____?
- a) NAD⁺
 - b) FAD
 - c) NADP⁺
 - d) Both a and b

- 111) What is Glycolysis?

It is the oxidation of glucose to pyruvic acid with the production of some ATP and energy-containing NADH.

- 112) Define kreb cycle?

It is Oxidation of acetyl CoA to carbon dioxide, with the production of some ATP and energy-containing NADH and FADH₂.

From topics 26 to 30

- 113) ____ Uses light as a source of energy.

- a) Chemoautotrophs
- b) Photoautotrophs
- c) Both of these
- d) None of these

- 114) Green bacteria are ____?

- a) Oxygenic
- b) Non-oxygenic

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- c) Both of these
d) None of these
- 115) Lipids and proteins can enter at various points in the ____?
a) Glycolysis
b) Krebs cycle
c) Fermentation
d) Both a and b options
- 116) Microbes classified on the basis of ____ Requirements?
a) Bacterial
b) Physical
c) Nutritional
d) Chemical
- 117) What are Physical requirements and Chemical Requirements for bacterial growth ?
physical: Temperature, pH & Osmotic Pressure
Chemical: Source of C, N, S, P, O, Trace elements Growth factors
- 118) How bacteria Classified based on temperature?
Psychrophiles: – Cold loving: 15 0C
Mesophiles: 25 – 40 0C – Moderate temp loving Optimum: 37 0C
Thermophiles: 50 – 60 0C – Heat loving– Important in organic compost piles
- 119) Psychrotrophs Grows best at ____ Can grow at refrigeration temperature?
a) 18 – 30 0C
b) 20 – 30 0C
c) 30 – 40 0C
d) 30 – 100 0C
- 120) Food spoilage occurs between
a) 5 - 60 0C
b) 18 – 30 0C
c) 30 – 40 0C
d) 10 – 100 0C
- 121) Most bacteria grow at ____ pH.
a) 5.5 to 6.5
b) 6.5 to 7.5
c) 7.5 to 8.5
d) 6.7 to 7.0
- 122) Osmotic pressure is necessary for integrity of ____?
a) Microbes
b) Viruses

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- c) Bacteria
d) Fungus
- 123) Chemoheterotrophs Use C from energy sources like ____?
a) Proteins
b) Carbs
c) Lipids
d) All of these
- 124) Sulfur and phosphorus needed for ____?
a) Nucleic acids
b) Sulphuric acids
c) Phosphoric acids
d) All of these
- 125) _____ during Kreb's cycle oxidized via ETC and generate 36 or 38 ATP molecules
a) NADH
b) FADH₂
c) NAD
d) Both a and b
- 126) Anaerobes do not have SOD, so cannot grow in the presence of ____?
a) CO₂
b) O₂
c) CO₃
d) None of these

From topic 31 to 36

- 127) _____ is a nutrient material for growth Some of them grow easily, other do not grow at all?
a) Culture medium
b) Growth medium
c) Nutritional medium
d) Bacterial medium
- 128) For growth initiation which of the following Microbe introduced into a culture medium?
a) O₂
b) Complex carb
c) Petri plates
d) Inoculum
- 129) Pure culture is easy to obtain by _____ the organisms

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- a) Displaying
 - b) splashing
 - c) banding
 - d) streaking
- 130) who was the first to develop pure culturing technique.
- a) Robert Koch
 - b) Robert hook
 - c) H Methelada
 - d) Emiet Autiton
- 131) In how many categories The media that we used for bacterial or microbial growth is classified? Also mention their names?
Chemical composition, physical nature, function
- 132) Nutrient agar+ blood=?
- a) Nutrient blood
 - b) Blood agar
 - c) Nutrient agar blood
 - d) None of these
- 133) β -hemolysis includes _____?
- a) clear zone
 - b) complete hymolysis
 - c) greenish halo
 - d) both a and b
- 134) α -hemolysis contained _____?
- a) Greenish halo
 - b) Partial hemolysis
 - c) Clear zone
 - d) Both a and b
- 135) In Classification of Media Chemical composition contained defined and complex media what is its mean?
Defined or synthetic means we know the organism
Complex mean an organism is not known or is fastidious
- 136) which of the following things are required for the production of MacConkey Agar?
- a) Nutrient agar
 - b) Bile salt
 - c) CV
 - d) All of these
- 137) _____ is A progeny of single cell?
- a) Pure Culture

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- b) Culture medium
 - c) Inoculum
 - d) Nutrient blood
- 138) In pour plate method how many colonies are used?
- a) 10 to 100
 - b) 20 to 200
 - c) 30 to 300
 - d) 40 to 400

- 139) What methods are included in pure culture? Mention their names

Streak Plate method, Spread plate and pour plate method

- 140) Which of the following option refers to the batch culture of bacterial growth?
- a) Nutrients depleted
 - b) Waste products increased
 - c) Waste products decreased
 - d) Both a and b

- 141) How the Generation time Can be calculated from the exponential phase of growth?

$$k = \frac{\log 10^9 - \log 10^3}{(0.301)(10 \text{ hr})} = \frac{9 - 3}{3.01 \text{ hr}} = 2.0 \text{ generations/hr}$$

$$g = \frac{1}{2.0 \text{ gen. hr}} = 0.5 \text{ hr/gen. or } 30 \text{ min/gen.}$$

- 142) How many phases are there in growth curve of bacterial growth?
- a) 2
 - b) 3
 - c) 4
 - d) 5

- 143) Tell the names of phases in the growth curve of bacteria; growth?

Lag phase: initial

Log phase: first increasing phase

Stationary phase: constant phase (in my words)

Decline phase: decreasing phase

- 144) Which of the following method is a Viable counting method?
- a) Spread plate
 - b) Pour plate

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- c) Pure culture
d) Both a and b
- 145) Direct methods are used for ____?
a) Microbial count
b) Dry mass
c) Most probable number
d) All of these
- 146) Indirect methods include?
a) Dry mass
b) Spectrophotometer
c) Most probable number
d) All of these
- 147) _____ is Removing of all microbial life including spores?
a) Sterilization
b) Disinfection
c) Antisepsis
d) Degerming
- 148) _____ is Removing of pathogens significantly?
a) Sterilization
b) Disinfection
c) Antisepsis
d) Degerming
- 149) _____ is Removing of pathogens from living tissue?
a) Sterilization
b) Disinfection
c) Antisepsis
d) Sanitization
- 150) _____ is Removing of microbes from a limited area (injection site)?
a) Degerming
b) Disinfection
c) Antisepsis
d) Sanitization
- 151) _____ is Lowering of microbial counts on eating utensils?
a) Degerming
b) Disinfection
c) Antisepsis
d) Sanitization
- 152) Difference b/w Sepsis and Asepsis?

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Sepsis is a Microbial contamination in living organisms and Asepsis is the Absence of significant contamination like we use Aseptic surgery techniques to prevent microbial contamination of wounds

From topics 36 to 40

153) Microbial death rate observe that _____?

- a) Organisms don't die at once
- b) Death rate is constant
- c) Birth rate is constant
- d) Both a and b

154) Decimal reduction time is the Time required to kill _____ at a given Temperature?

- a) 90% of microbes
- b) 80% of bacteria
- c) 70% of microbes
- d) 60% of bacteria

155) Decimal reduction time is also Called _____ which is time to drop the value by 1 log or 10-fold

- a) D value
- b) E value
- c) G value
- d) Z value

156) What are the Factors that influence microbial death rate

No. of microbes, Environment, Organic matter, pH Temperature, Exposure time, Microbial characteristics, Concentration of antimicrobial.

157) Acidic pH _____ the death rate?

- a) Decreases
- b) Increases
- c) Has no effect on
- d) constant

158) What is meant by TDP & TDT?

Thermal death point & Thermal death time

159) Thermal death point is the Lowest temperature at which all cells in a culture are killed in _____?

- a) 10 minutes
- b) 30 minutes
- c) 45 minutes
- d) 55 minutes

Bt102 objective notes for mid term

160) _____ is the minimum Time during which all cells in a culture are killed at given temperature.

- a) TDP
- b) TDT**
- c) TPT
- d) DTP

161) In microbial control the Physical method includes _____?

- a) Heat
- b) Radiation
- c) Flaming
- d) Both a and b**

162) How a dry Heat is classifies?

There are two types of dry heat which are incineration in which objects burns and dry oven in which we just provide heat but not burn the objects

163) For achieving sterilization if we use hot air the temperature has to achieved _____ & time must be _____?

- a) 100 C, 1hr
- b) 90 C, 2 hr
- c) 150 C, 1 hr
- d) 170 C, 2 hr**

164) Pasteurization is a way to _____ heat?

- a) Dry
- b) Moist**
- c) Change
- d) Increase

165) What should be the initial temperature of pasteurization?

- a) 63°C for 30 min**
- b) 53°C for 10 min
- c) 36°C for 35 min
- d) 60°C for 40 min

166) What should be the maximum temperature of pasteurization?

- a) 72°C for 15 sec**
- b) 53°C for 10 min
- c) 60°C for 40 sec
- d) 63°C for 30 sec