

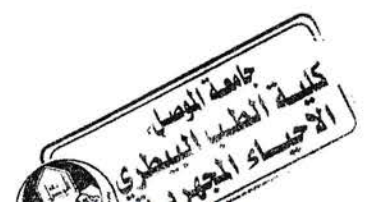


Q: Choose the Correct answer:

1. Samples that collecting for bacterial isolation must be careful to prevent sample degradation, so use
a-Transport media b-5% Formalin c- Disposable gloves
2. Class I Biological Safety Cabinets from potentially dangerous microbiological agents.
a- Protecting Workers, products and environment
b- Protecting the operator, but no protection for the contents.
c- Total protection for the operator, the environment and the contents
3. One of the following is not a part of Personal Protective Equipment (PPE):
a-Latex gloves. b- Shoe cover and boots c- Safety cabinet
4. One of the below procedures is wrong for control of bleeding a person within the laboratory:
a- Do not use a tourniquet when limb is mangled.
b- Elevate the extremity to decrease blood flow and raise it above the heart.
c- Place a clean cloth over the site and apply pressure
5. Biological agents are categorized in Risk Groups (RG) based on their relative risk. So, the Risk group 2 is.....
a- Not associated with disease in healthy adult humans or animals
b- Associated with disease which is rarely serious and for which preventative or therapeutics is often available.
c- Associated with serious or lethal human disease for which preventative or therapeutics may be available.
6. Endotoxin is present in outer membrane of cell wall of Gram-negative bacteria, Named:
a- Polysaccharides b- Lipopolysaccharides c- Sugars
7. Chemotaxis is _____
a- The use of an inorganic chemical as an energy source
b- The form of energy that powers the bacterial flagellum
c- Movement by a bacterium in response to a chemical stimulus
8. According to temperature as physical growth requirement, most pathogenic bacteria are:
a- Psychrophilic b- Thermophilic c- Mesophilic
9. Summer mastitis is a disease caused by _____
a- *Arcanobacterium pyogenes* b- *Nocardia asteroides* c- *Actinomyces bovis*
10. Lancefield grouping is a serological method of classification of *Streptococcus* spp. based on _____.
a- substance, a cell-wall polysaccharide antigen b-.Lipopolysacchrides (LPS).
c- Outer membrane proteins (OMPs).
11. *Mycobacterium* spp. are _____.
a- Acid fast coccobacilli b- Acid fast bacilli c- Acid-fast Gram-positive bacilli.



- 28- *Salmonella* is the genus belonging to Family *Enterobacteriaceae*, Gram-negative rods, motile exceptand
- a- *Salmonella Gallinarum* and *Salmonella Pullorum*
 - b- *Salmonella Typhi* and *Salmonella Paratyphi*
 - c- *Salmonella Enteritidis* and *Salmonella Dublin*
- 29- Enteric Yersinioses caused by.....
- a- *Yersinia pestis*
 - b- *Yersinia enterocolitica*
 - c- *Yersinia pseudotuberculosis*.
- 30-..... Gram-negative, anaerobic bacteria, and produce foot rot disease in sheep in association with other pathogens.
- a- *Dichelobacter nodosus*
 - b- *E. coli*
 - c- *Proteus mirabilis*
- 31-..... in lambs is commonly septicemic and peracute.
- a- Septicaemia
 - b- Coliform mastitis
 - c- Colibacellosis
- 32- Differentiation of the *Enterobacteriaceae* according to lactose fermentation in MacConkey agar, the colonies of lactose fermenters and the surrounding medium are due to acid production from lactose.
- a- Pale
 - b- Red
 - c- Pink
- 33- *Campylobacter* species are:
- a- Slender, curved, motile, Gram-positive rods.
 - b- Slender, curved, motile, Gram-negative rods.
 - c- Thick, non-motile, Gram-negative rods.
34. One of the statements below is **correct** about *Staphylococcus* spp.
- a- They are Gram-negative cocci
 - b- They spore forming bacteria
 - c- They form clusters resembling bunches of grapes
35. *Streptococcus equi* that affects the upper respiratory tract of horses causes
- a- Undulant fever
 - b- Abortion
 - c- Strangles
36. In stained smears,occur singly, in palisades of parallel cells and in angular clusters resembling Chinese characters.
- a- *Moraxella* spp.
 - b- *Staphylococcus* spp.
 - c- *Corynebacterium* spp.
37. can grow over a wide temperature range from 4 °C to 45 °C and can tolerate pH values between 5.5 and 9.6.
- a- *Listeria* spp.
 - b- *Brucella* spp.
 - c- *Pasteurella* spp.
38. *Brucella* spp. are needed 5 - 10% CO₂ for primary isolation, which means they are.
- a- Capnophilic bacteria
 - b- Anaerobic bacteria
 - c- Aerobic bacteria
39. Abortion in cattle is mainly caused by:
- a- *Brucella abortus*
 - b- *Brucella neotomae*
 - c- *Brucella canis*
40. Erythritol, a polyhydric alcohol which acts as a growth factor for *Brucellae* in the affected animals, is present in high concentrations in the.....
- a- Brain
 - b- Placenta
 - c- lungs
41. Pathogenic *Mycobacteria* grow slowly on solid media and need.....to grow.
- a- 3 to 6 hours
 - b- 3 to 6 days
 - c- 3 to 6 weeks
42. The standard setting for a hot-air oven is
- a. At least 2 hours at 160° C
 - b. At least 1 hour at 180° C
 - c. At least 2 hours at 180° C



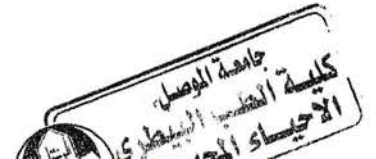
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- 43- Dry heat kills microorganisms
 - a- By oxidation effects b- Reduction effects c- Coagulation effects
- 44- The period in which microorganisms are growing and dividing at the maximal rate is called:
 - a- Exponential phase b- Stationary phase c- Lag phase
- 45- Transport of molecules against a concentration gradient, the material is more concentrated on the inside of the cell than on the outside, it is called:
 - a- Simple diffusion b- Active c- Passive
- 46- Bacteria do not use O₂ but can grow when it is present – Often ferment glucose to lactic acid, and are called:
 - a- Anaerobic b- Microaerophiles c- Aerotolerant
- 47- A classification system that groups organisms together based on the similarity of their observable characteristic is :
 - a- Phylogenetic classification b- Genotypic classification
 - c- Phenetic classification
- 48- Variant strains that have distinct antigenic characteristics are called
 - a- Strains b- Serovars c- Biovars
- 49- Dietary supplements or food products that contain beneficial, friendly, and good live bacteria or yeasts are called.....
 - a- Prebiotic b- Probiotic c- Normal flora
- 50- best describes a primary immune response was
 - a- Small increase in specific IgG after 7-10 days b- increase in specific IgM after 2-3 days
 - c- increase in specific IgM after 7-10 days
- 51- following is responsible for secondary immune responses
 - a- naïve lymphocytes b- memory lymphocytes c- effector lymphocytes
- 52- Which of the following is an accurate description of the consequences of the positive and negative selection of T cells in the thymus?
 - a- It results in a diverse population of T cells with high affinity for self (MHC/peptide)
 - b- It results in a diverse population of T cells with low affinity for self (MHC/peptide)
 - c- It leads to the deletion of T cells with a high affinity for self (MHC/peptide)
- 53- Which of the following is a secondary lymphoid organ?
 - a- Bone marrow b- Hypothalamus c- Spleen
- 54- which of the following cell types mediates adaptive immune responses?
 - a- Lymphocyte b- Macrophage c- Natural Killer cell
- 55- Which of the following toll like receptors is responsible to detection of flagellin (flagella protein of bacteria)?
 - a- TLR2 b- TLR4 c- TLR5
- 56- The CD4 glycoprotein on the naïve T cell acts as a co-receptor, that binding to
 - a- MHC class I molecules b- MHC class II molecules c- MHC class III molecules
- 57- Which of the following cell is involved in the activation of many types of immune cells?
 - a- B-cell b- T-cell c- Phagocytic cell
- 58- Among the components of innate immunity first line of defense is
 - a- Skin and mucous membranes b- Natural killer cells and phagocytes
 - c- CMI
- 59- Which of the following DOES NOT play a role in antigen presentation?
 - a. MHC class I molecules b- MHC class II molecules
 - c. MHC class III molecules





- 60- Toxoid vaccines provides protection only against _____
a-Toxin which was prepared from it
b-All bacterial diseases
c-All viral diseases
- 61- Antigenicity: means the ability of an antigen to bind with _____
a-O-Ag
b-H-Ag
c-Antibodies
- 62- Pili and fimbriae are short projections that cover the surfaces of some Gram-negative bacteria; they are classified as _____
a-O-antigens
b-H-antigens
c-F or K-antigens
- 63- Immunoglobulins are produced by _____
a-Plasma cell b-B cell c-Tcell
- 64- Which of the following cells Act as antigen presenting cells?
a-Dendritic cells
b-Memory T cell
c-Plasma cells
- 65- Type 3 hypersensitivity reactions are mediated by antibodies called _____
a-IgE and IgD
b-IgG and IgM
c-IgA and IgD
- 66- Organ grafts transplanted between animals of different species known as _____
a-Autograft
b-Allografts
c-Xenografts
- 67- The CD8 glycoprotein on the naïve T cell acts as a co-receptor, that binding to _____
a. MHC class I molecules
b. MHC class II molecules
c. MHC class III molecules
- 68- Each L chain of immunoglobulin is composed of _____
a-100 amino acids
b-220 amino acids
c-440 amino acids
- 69- Which of the following immunoglobulins is mainly present in body secretions?
a) IgG
b) IgM
c) IgA
- 70- There are _____ genera in the subfamily Parvovirinae
a-1 b-4 c-3
- 71- In infections of Feline Panleukopenia of the fetus cat or newborn kitten where there is considerable cell division in many organs, the infection may be _____
a-Narrow b-acute c- widespread
- 72- Orf virus is transmitted by the _____ from infected animals
a-urinary tract route b- gastrointestinal route
c- respiratory route
- 73-Capripox virus cause _____ important disease in animals
a-1 b-4 c-3



- 91- Microbiology wastes means _____.
- a. Bacteria
b. Needles
c. Broken glass
- 92- Tetanus is caused by exotoxin of _____.
- a. *Clostridium tetani*
b. Influenza virus
c. *Leptospira*
- 93- Inhalation of a chemical agent means it _____.
- a. Enter through skin
b. Enter via mouth
c. Enter into lungs
- 94- Example of toxic substance is _____.
- a. Sodium cyanide
b. Sodium chloride
c. hydrogen peroxide
- 95- Indirect contacts means coming into contact with _____.
- a. Blood
b. feces
c-areas e.g soil
- 96- Biological hazards enter the living body by _____.
- a. Inhalation route
b. Injection route
c. Ingestion route
- 97- One of the following sentences is correct about standard microbiological techniques and safety procedures?
- a. Do not eat or drink in the laboratory
b. Pipetting by mouth is allowed
c. Do not clean up spills
- 98- The family Poxviridae is subdivided into _____ subfamilies
- a-3
b-5
c-3
- 99- There are _____ forms of fowlpox
- a-3
b-4
c-2
- 100- The family Adenoviridae currently comprises _____ serologically distinct genera
- a-2
b-5
c-4

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