

Seat No.	
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P.G. Entrance Examination, June - 2022**M.Sc. Microbiology/Pharmaceutical Micro./Inds. Micro./App. Micro.****Sub. Code : 58717****Day and Date : Friday, 10 - 06 - 2022****Total Marks : 100****Time : 01.00 p.m. to 02.30 p.m.**

- Instructions :**
- 1) All questions are compulsory.
 - 2) Each question carries 1 mark.
 - 3) Answers should be marked in the given OMR answer sheet by darkening the appropriate option.
 - 4) Follow the instructions given on OMR sheet.
 - 5) Rough work shall be done on the sheet provided at the end of question paper.

1) _____ medium is used for enrichment of Staphylococcus Species.

- A) Tetrathionate broth B) MacConkey's broth
C) Mannitol salt broth D) Blood broth

2) Milk is an example of _____ medium.

- A) natural B) semisynthetic
C) inorganic synthetic D) organic synthetic

3) Example of monosaccharide is _____.

- A) Starch B) Maltose
C) Glucose D) None of the above

P.T.O.

- 16) Cancerous cells can be developed due to _____.
- A) mutations in somatic cells
 - B) defect in immune cells
 - C) activities of tumor causing viruses
 - D) any combination of A, B and C
- 17) _____ is an enveloped virus having ether sensitive envelope.
- A) T4 phage
 - B) Human immunodeficiency virus
 - C) Tobacco mosaic virus
 - D) Adeno virus
- 18) An isometric capsid of a virus is made up of minimum _____ capsomers.
- A) 20
 - B) 12
 - C) 60
 - D) 120
- 19) For purification of viruses by density gradient centrifugation one can use _____ solution for preparing density gradient.
- A) CsCl_2
 - B) glucose
 - C) peptone
 - D) tryptone
- 20) Binding of interferon to the receptor induces _____ enzyme which causes phosphorylation of elf-2.
- A) RNase L
 - B) 2.5 (A) Synthetase
 - C) Phosphodiesterase
 - D) Protein kinase

- 21) In phagocytosis, reactive oxygen species are generated by _____ enzyme complex in phagosome.
- A) oxygenase
 - B) nitric oxide synthase
 - C) NADPH phagosome oxidase
 - D) dismutase
- 22) Functional unresponsiveness of T cell to antigen is called _____.
- A) clonal delation
 - B) clonal anergy
 - C) clonal selection
 - D) negative selection
- 23) _____ domain of IgG binds to first complement component.
- A) CH₁
 - B) CH₂
 - C) CH₃
 - D) CH₄
- 24) In acid fast staining, _____ is used as a secondary stain.
- A) basic fuchsin
 - B) congo red
 - C) methylene blue
 - D) crystal violet
- 25) Hematopoietic stem cells are found in _____.
- A) skin
 - B) spleen
 - C) bone marrow
 - D) peyer's patches
- 26) Antigen presenting cells must express costimulatory _____ molecule.
- A) CD 28
 - B) A 7
 - C) CD 4
 - D) B 7

- 51) pBR 322 is derived from _____.
- A) RSF 2124, pMB 1 and pSC 101
 - B) RSF 101, pMB 1 and pTi
 - C) RSF 01, pSC 101 and pRM 1
 - D) RSF 21, pTB 11 and pTi
- 52) Conditional lethal mutations are lethal under _____ conditions.
- A) permissive
 - B) non-permissive
 - C) optimum
 - D) non dividing
- 53) Pribnow studied _____ gene in detail.
- A) Operator
 - B) Repressor
 - C) Structural
 - D) Promoter
- 54) _____ can form a peptide bond.
- A) Two nucleotides
 - B) Two amino acids
 - C) Both (A) & (B)
 - D) Two glucose unit
- 55) _____ is a substrate concentration at which the rate of reaction is half of its maximum velocity.
- A) K_m
 - B) V_{max}
 - C) Specific activity
 - D) None of the above
- 56) Proteins are separated on the basis of _____.
- A) net charge
 - B) solubility in salt solutions
 - C) all of these
 - D) none of the above

- 74) The characteristic feature of *C. albicans* which differentiates it from other *Candida* species is _____.
- A) formation of chlamyospore
 - B) fermentation of sugar
 - C) assimilation of sugar
 - D) small budding yeast like fungi
- 75) Administration of drug after exposure to pathogen to prevent development of symptoms is called _____.
- A) Prophylaxis
 - B) Immunoprophylaxis
 - C) Chemoprophylaxis
 - D) Immunization
- 76) Colonies of _____ pathogen may be identified by string test.
- A) *Kleb. pneumoniae*
 - B) *C. albicans*
 - C) *Pseudo.aeruginosa*
 - D) *V. cholerae*
- 77) *P. Falciparum* causes _____ type of malaria.
- A) Benign tertiary
 - B) Malignant tertiary
 - C) Benign quarternary
 - D) Malignant quarternary
- 78) _____ inhibit cell wall synthesis by interfering with action of the lipid carrier that transports wall precursors across the plasma membrane.
- A) Streptomycin
 - B) Penicillin
 - C) Bacitracin
 - D) Vancomycin

- 90)** Cyanobacteria are examples of _____ bacteria.
- A) Chemoautotrophic B) Chemoheterotrophic
C) Photoautotrophic D) Photoheterotrophic
- 91)** Protovirus theory explains the mechanism of malignancies caused by _____.
A) defective B) somatic mutations
C) DNA viruses D) RNA viruses
- 92)** Human monoclonal antibodies that contain CDR sequences of mouse origin are called _____ Monoclonal antibodies.
A) Bispecific B) Autoantigen
C) Chimeric D) Humanized
- 93)** Endogenous antigens are processed by _____ pathway.
A) Cytosolic B) Glycolytic
C) Endocytic D) Endoplasmic
- 94)** In hybridoma technology _____ is made deficient of hypoxanthin guanosyl phosphoribosyl transferase enzyme.
A) B cell B) hybrid cell
C) myeloma cell D) hybridoma cell
- 95)** Stem cells can be obtained from _____.
A) only from an embryo
B) only from the brain
C) only from tissues of the body
D) from an embryo or tissues in the body

Rough Work

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