

Sree Chitra Tirunal Institute for Medical Sciences & Technology,

Thiruvananthapuram-695011

WRITTEN TEST FOR THE POST OF TECHNICAL ASSISTANT (LAB) - A

Roll Number:

1. Factor – XII of clotting mechanism is known as
 - A. Tissue factor
 - B. Pro-converitin
 - C. Hageman factor
 - D. Stuart Prower factor
2. The No. of RBCs present in each cubic millimeter of blood is
 - A. 50,00,000
 - B. 40,00,000
 - C. 3,50,000
 - D. 8,000
3. Bilirubin is **not** excreted in urine in
 - A. Obstructive jaundice
 - B. Hepatic Jaundice
 - C. Hemolytic Jaundice
 - D. Cholecystitis
4. Sickle cell anemia occurs due to a single amino acid change in the following chain.
 - A. α - chain
 - B. γ - chain
 - C. δ - chain
 - D. β - chain
5. The amount of Albumin present in each 100 ml of blood is
 - A. 2 to 3 gm
 - B. 3 to 5 mg
 - C. 3 to 5 gm
 - D. 2 to 3 mg
6. Vitamin – B12 & folic acid are mainly responsible for the synthesis of
 - A. Mature WBC
 - B. Platelets
 - C. Mature RBC
 - D. Hepatocytes

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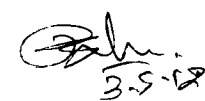
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7. Heme is mainly synthesized in
A. Bone Marrow
B. Liver
C. Kidney
D. Mitochondria
8. The lipoprotein possessing the highest quantity of phospholipids.
A. HDL
B. LDL
C. VLDL
D. Chylomicrons
9. The end product of protein metabolism is
A. Uric acid
B. Urea
C. Amino acids
D. None of these
10. 'Phenylketonuria' is caused due to the deficiency of
A. Phenylalanine Transaminase
B. Phenylalanine Kinase
C. Phenylalanine Hydrogenase
D. Phenylalanine Hydroxylase
11. Synthesis of urea occurs in
A. Kidney
B. Liver
C. Muscle
D. Brain
12. The No. of leukocytes present per cubic millimeter of blood are
A. 5000 to 10000 / cubic mm
B. 10000 to 20000 / cubic mm
C. 1000 to 5000 / cubic mm
D. 25000 to 50000 / cubic mm.
13. Lymphocytes normally comprise _____ % of the total WBC
A. 10 %
B. 40 %
C. 30 %
D. 60 %
14. The Antibody present in the Blood Group 'A' is
A. Anti - B
B. Anti - A
C. Anti - O
D. Anti - Rh

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15. The normal level of Blood glucose is
A. 50 – 100 mg / dl
B. 120 – 140 mg / dl
C. 100 – 120 mg / dl
D. 60 to 120 mg / dl
16. Factor – II of the blood clotting mechanism is known as
A. Fibrinogen
B. Prothrombin
C. Thromboplastin
D. Calcium (Ca^{+2})
17. "Gout" is the metabolic disease associated with over production of
A. Urea
B. Urease
C. Uric acid
D. Urobilin
18. "Rickets" is mainly caused due to the low levels of the following vitamin
A. Vitamin - D
B. Vitamin - K
C. Vitamin - A
D. Vitamin – B complex
19. The following element is mainly involved in wound healing process
A. Calcium
B. Sodium
C. Zinc
D. Magnesium
20. Hypercholesterolemia is observed in following disorder
A. Hypothyroidism
B. Diabetes Mellitus
C. Nephrotic syndrome
D. All of them
21. Most predominant anion of the extra cellular fluids.
A. Cl^-
B. HCO_3^-
C. HPO_4^{2-}
D. Protein
22. Normal Avg. platelet count is
A. 1,00,000 / cubic mm
B. 3,50,000 / cubic mm
C. 4,50,000 / cubic mm
D. 5,00,000 / cubic mm

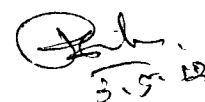


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23. Functional unit of kidney is known as
A. Astrocyte
B. Nephron
C. Bladder
D. Golgi body
24. Iron in the mucosal cells binds with the a protein known as
A. Transferrin
B. Ferritin
C. Cerulaplasmin
D. Hemosidesin.
25. "Goiter" is the disorder due to the abnormal metabolism of
A. Iron
B. Copper
C. Zinc
D. Iodine
26. "Wilson's disease" is mainly due to abnormal metabolism of
A. Magnesium
B. Iron
C. Copper
D. Manganese
27. Normal plasma creatinine value is
A. 1.2 – 2.0 mg / dl
B. 5.0 – 10.0 mg / dl
C. 0.6 – 1.2 mg / dl
D. 10.0 – 20.0 mg / dl.
28. The plasma protein mainly involved in the maintenance of osmotic – pressure is
A. Globulins
B. Albumin
C. Fibrinogen
D. All the above
29. Plasma Protein mainly involved in blood clotting mechanism.
A. Albumin
B. Fibrinogen
C. Globulin
D. None of these
30. Haemoglobin present in blood is diminished during
A. Leukemia
B. Leukopenia
C. Anemia
D. Hemosiderrhosis

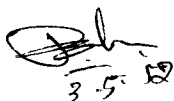
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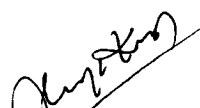
31. The composition of blood mainly consists of water, protein & salts in %
A. Water – 91.0% + Protein – 8.0% + Slats – 0.9 % + other elements
B. Water – 92.0% + Protein – 7.0% + Slats – 0.9 % + other elements
C. Water – 90.0% + Protein – 9.0% + Slats – 0.9 % + other elements
D. Water – 91.0% + Protein – 7.0% + Slats – 1.9 % + other elements
32. "Albinism" is due to the disorder in the metabolism of
A. Transaminase
B. Tynosinase
C. Tynosine Transaminase
D. None of these
33. "Hartnup disease" is mainly due to the disorder in
A. Tyosine metabolism
B. Cystine Metabolism
C. Tryptophan Metabolism
D. Histidine Metabolism
34. The Normal range of Serum Cholesterol is
A. 150 – 200 mg / dl
B. 100 – 150 mg / dl
C. 200 – 250 mg / dl
D. 75 – 125 mg / dl
35. The normal range of Albumin from the total serum proteins is
A. 1.0– 2.0 gm / dl
B. 3.5 – 5.0 gm / dl
C. 5.0 – 7.5 mg / dl
D. 7.0 – 9.5 mg / dl
36. Conjugated bilirubin levels are increased during
A. Hepatic Jaundice
B. Obstructive jaundice
C. Hemolytic jaundice
D. Cholecystitis
37. The half-life of serum Albumin is ____ days.
A. 5-10 days
B. 10 – 15 days
C. 15-20 days
D. 20 – 25 days
38. Normal value of Bicarbonate present in the blood is
A. 24 - 30 m.mol / lt
B. 30 - 35 m.mol / lt
C. 35 - 40 m.mol / lt
D. 40 - 43 m.mol / lt

39. One of the following minerals is lacking in milk
- A. Calcium
 - B. Sodium
 - C. Iron
 - D. Potassium
40. The biochemical parameters increased in tuberculous meningitis
- A. Glucose
 - B. Protein
 - C. Sodium
 - D. Chloride
41. Functionally active form of vitamin – D is
- A. Cholecalcitriol
 - B. Ergocalcetriol
 - C. Dehydro cholesterol
 - D. Calcitriol
42. The metabolite excreted in Urine in Thiamine deficiency
- A. Pyruvate
 - B. Glucose
 - C. Xanthouric acid
 - D. FIGLU
43. Folic acid antagonist used in the treatment of cancer
- A. Methotroxate
 - B. Thrimethopum
 - C. Sultonamide
 - D. Adenosine
44. Glass knives are used in
- A. Cryostat
 - B. Vibrotome
 - C. Rocking microtome
 - D. Ultramicrotome
45. Embedding medium used in Electron microscopy
- A. Gelatin
 - B. Carbonase
 - C. Celloidin
 - D. Epoxy resin
46. Monoclonal antibodies are produced by
- A. T lymphocytes
 - B. Hybridoma
 - C. Natural Killer cells
 - D. Dendrite cells



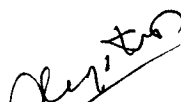
47. Which of the following is the most sensitive assay?
- A. ELISA
 - B. Agglutination
 - C. Immunodiffusion
 - D. Radio immuno assay
48. The resolution of electron microscope is
- A. 200 nm
 - B. 0.2 nm
 - C. 20 nm
 - D. 2 nm
49. The gene for Factor VIII is present on
- A. Chromosome 6
 - B. Chromosome 16
 - C. X Chromosome
 - D. Chromosome II
50. In immunofluorescence the antibody is conjugated with
- A. Peroxidase
 - B. I^{124}
 - C. FITC
 - D. Luminol
51. Which one is used as a "stain" in electron microscopy?
- A. Copper
 - B. Gold
 - C. Uramyl acetate
 - D. Lithium salt
52. Perls stain uses
- A. Mixture of Potassium Ferro cyanide and H_2SO_4
 - B. Mixture of Potassium Ferro cyanide and HCl
 - C. Mixture of HNO_3 and Sodium Ferro cyanide
 - D. Mixture of HCL and Sodium Ferro cyanide
53. Millipore filters are made of
- A. Nitrocellulose
 - B. Polycarbonate
 - C. Whatman No.1
 - D. Polystyrene
54. Screening test for Lactose
- A. Bial's test
 - B. Methylamine test
 - C. Seliwanoff's test
 - D. Hay's test


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55. Polymerase Chain Reaction is used for
- A. Identification of Bacteria
 - B. Detection of mutant genes
 - C. Diagnosis of AIDs
 - D. Sequencing DNA
56. Proteins can be precipitated by the following methods except
- A. Isoelectric precipitation
 - B. Using heavy metal ions
 - C. By organic solvents
 - D. By acids
57. The mobility of molecules during electrophoresis depends on the following factors, except
- A. PH of the medium
 - B. Net charge on the particles
 - C. Strength of electric field
 - D. Volume of buffer
58. Porphyrins are demonstrated by
- A. UV fluorescence
 - B. Spectroscopy
 - C. Electrophoresis
 - D. ELISA
59. Gram positivity of an organism is due to the cell wall content mainly
- A. Proteins
 - B. Polysaccharides
 - C. Lipids
 - D. Peptidoglycan
60. Bacterial spore can be demonstrated by
- A. Negative staining
 - B. Grams staining
 - C. Acid fast staining
 - D. Albert's staining
61. Melting point of agar agar is
- A. 100°C
 - B. 98°C
 - C. 56°C
 - D. 42°C
62. The immunoglobulin which is transported through placenta
- A. Ig G
 - B. Ig M
 - C. Ig A
 - D. Ig E


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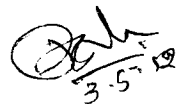


63. The fungus which is not cultivable under ordinary culture media
- A. Histoplasma capsulatum
 - B. Sporothrix Schenckii
 - C. Cryptococcus neoformans
 - D. Rhinosporidium
64. Interferons are agents used against
- A. Bacteria
 - B. Fungus
 - C. Virus
 - D. Parasites
65. In Brucella agglutination test, the serum is diluted in
- A. Normal Saline
 - B. Glycerol Saline
 - C. Phenol Saline
 - D. Formol Saline
66. High levels of Alkaline phosphatase are seen in the following conditions, except
- A. Bone diseases
 - B. Alcoholism
 - C. Obstructive jaundice
 - D. Hyperparathyroidism
67. In myocardial infarction
- A. Serum cholesterol increases
 - B. Serum ALP increases
 - C. Serum CKMB level increases
 - D. Serum acid phosphatase increases
68. Most specific method for glucose estimation is
- A. Folin -Wu method
 - B. Hexokinase method
 - C. Nelson - Somogyi method
 - D. Glucose oxidase method
69. Proteins can be separated according to size by
- A. Isoelectric focusing
 - B. Poly-acrylamide gel electrophoresis
 - C. Ion exchange chromatography
 - D. Affinity chromatography
70. Western Blot analysis is for identifying
- A. DNA
 - B. RNA
 - C. Protein
 - D. Bacteria


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71. Preservatives for urine include all the following except
A. Formalin
B. Toluene
C. HCl
D. H_2SO_4
72. Tuberculosis bacillus was discovered by
A. Louis Pasteur
B. Robert Koch
C. Paul Ehrlich
D. Hansen
73. Demonstration of Negri body is a diagnostic method for the detection of
A. CMV
B. Rabies
C. EBV
D. HIV
74. Which one of the following hemorrhagic disease is not transmitted by the vector mosquito
A. Chickungunya
B. Dengue
C. Kyasannur forest disease
D. Yellow fever
75. The cell type primarily affected by HIV
A. T4 cells
B. T8 cells
C. B cells
D. NK cells
76. The type of antigen – antibody reaction in VDRL test is
A. Agglutination
B. Precipitation
C. Complement fixation
D. Neutralization
77. Significant titre of ASO is
A. 50 units
B. 100 units
C. 200 units
D. 400 units
78. Wintrobe's method of ESR estimation uses
A. Heparin
B. EDTA
C. Sodium Citrate
D. ACD

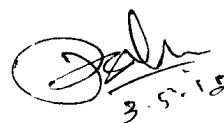

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79. Prothrombin Time will not be affected by deficiency of
- A. Factor VII
 - B. Factor V
 - C. Factor XIII
 - D. Factor II
80. Sodium dithionite is used in
- A. Reticulin stain
 - B. Electrophoresis
 - C. RBC count
 - D. Sickling test

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Signature of candidate


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