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ROLL NUMBER:

WRITTEN TEST FOR TECHNICAL ASSISTANT (LAB) – A

DATE : 03/10/2019

DURATION : 120 MINUTES

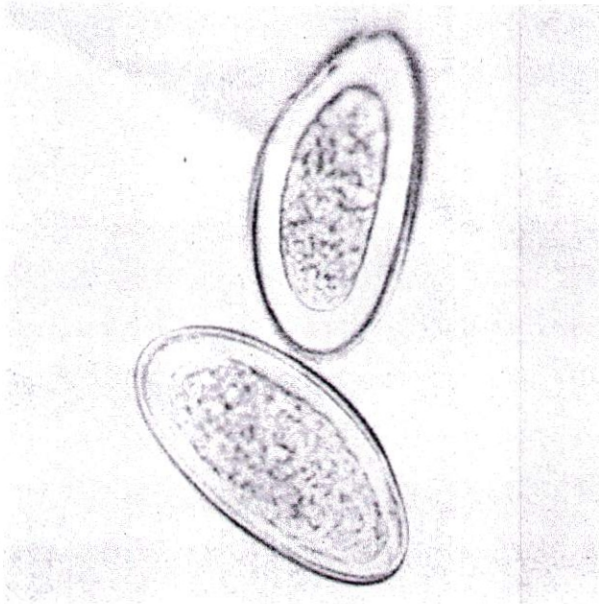
TOTAL MARKS : 100

INSTRUCTIONS TO THE CANDIDATE

1. Write your Roll Number on the top of the Question Booklet and in the Answer Sheet.
2. Each question carries 1 mark.
3. There will not be any Negative Marking.
4. Write legibly the alphabet of the most appropriate answer in the separate answer sheet provided.
5. Over-writing is not permitted.
6. Marking more than one answer will invalidate the answer.
7. Candidate should sign on the Answer Sheet.
8. Candidate should hand over the Answer Sheet to the invigilator before leaving the examination hall.

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

21. Which of the following is TRUE about infections with anaerobic bacteria?
- A) Swabs are the ideal specimens for diagnosis
 - B) Specimens collected are transported at 2-8^oc
 - C) Etiological diagnosis is not needed as they are universally susceptible to Metronidazole
 - D) Are usually polymicrobial in nature
22. Which fungal infections are strictly confined to Skin, Hair and Nail?
- A) Candidiasis
 - B) Blastomycosis
 - C) Coccidioides
 - D) Dermatophytosis
23. The egg corresponds to which of the following?



- A) *Enterobius vermicularis*
 - B) *Endolimax nana*
 - C) *Babesia* spp.
 - D) *Isospora belli*
24. Endotoxins are derivatives of
- A) Cell wall
 - B) Cell membrane
 - C) Lysosome
 - D) Mitochondria
25. A 20-year-old patient presented with features of acute meningo-encephalitis in emergency. His CSF on wet mount microscopy showed motile unicellular forms. The most likely microorganism is:
- A) *Iodameba butschlii*
 - B) *Naegleria fowleri*
 - C) *Entamoeba histolytica*
 - D) *Trypanosoma cruzi*
26. Several ring enhancing lesions in basal ganglia of immune-compromised patient which was diagnosed by IgG serological test and Sabin Feldman dye test is due to
- A) Echinococcosis
 - B) Cysticercosis
 - C) Toxoplasmosis
 - D) Trypanosomiasis
27. Which among the following is an example for bacterial extrachromosomal DNA
- A) Mesosomes
 - B) Plasmid
 - C) Nucleoid
 - D) Inclusion bodies
28. Which among the following gene transfer mechanisms involves direct contact between the bacteria?
- A) Conjugation
 - B) Transduction
 - C) Transformation
 - D) All of these
29. Blood agar medium is
- A) Enrichment medium
 - B) Enriched medium
 - C) Selective medium
 - D) Differential medium

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30. Which among the bacterial spores can withstand the moist heat effect
A) *Bacillus subtilis* C) *Bacillus stearothermophilus*
B) *Coxiella burnetti* D) *Pseudomonas*
31. Transmission of which infection through blood transfusion can be prevented by using leukoreduced blood
A) Malaria C) Chikungunya
B) Cytomegalovirus D) Babesiosis
32. Blood product which is most commonly associated with bacterial contamination
A) Platelet concentrate C) Cryoprecipitate
B) Fresh frozen plasma D) Packed red cells
33. Irradiated blood components are most beneficial in patients with
A) Chronic cardiac failure C) Immunodeficiency
B) Thalassemia D) IgA deficiency
34. Storage temperature of platelets
A) 18° C B) 10° C C) 22° C D) 1-6° C
35. Symptoms of iron overload is common with how many units of packed red cell transfusion
A) 100 B) 200 C) 50 D) 30
36. Which of the following antibody causes hemolytic disease of new born
A) IgM B) IgD C) IgA D) IgG
37. Blood component with highest specific gravity
A) RBC B) Platelet C) Plasma D) WBC
38. Antigen which is weakened by treatment with enzyme
A) Rh B) Duffy C) Kidd D) Lewis
39. Which of the following is **not** correctly matched
A) FFP ---- Liver failure
B) PRBC ----- Sickle cell anemia
C) Platelet ----- Thrombocytopenia
D) Cryoprecipitate ----- Factor V deficiency
40. Minimum weight required for whole blood donation in India
A) 55 kg B) 45 kg C) 40 kg D) 50 kg
41. Average nitrogen content of protein
A) 16% B) 20% C) 26% D) 6%
42. 400 mg/L Sodium hydroxide solution is
A) 10 M NaOH B) 1M NaOH C) 0.1M NaOH D) 0.01M NaOH
43. Anticoagulant needed for arterial blood gas analysis is
A) Heparin C) Potassium oxalate
B) Sodium citrate D) Fluoride-oxalate mixture
44. The parent substance in the biosynthesis of androgen and estrogen is
A) Cortisol C) Catecholamine
B) Cholesterol D) Glucocorticoids
45. The active form of vitamin D is
A) 1, 25 Dihydroxy cholecalciferol C) 1, 24 Dihydroxy cholecalciferol
B) 24, 25 Dihydroxy cholecalciferol D) 25 Hydroxy cholecalciferol

WRITTEN TEST FOR THE POST OF TECHNICAL ASSISTANT (L & B) - A

46. A xanthochromic CSF indicates
A) Intracranial hemorrhage
B) Traumatic tap
C) Viral meningitis
D) Bacterial meningitis
47. Reference range of serum uric acid level is
A) 0.3 - 0.9mg/dl
B) 3 - 7 mg/dl
C) 12 - 15 mg/dl
D) 1.2 - 3.5 mg/dl
48. Sulkowich's test is used for
A) Urinary calcium estimation
B) Urinary chloride estimation
C) Urinary cholesterol estimation
D) Urinary copper estimation
49. Amino acid involved in hippuric acid test is
A) Glycine
B) Alanine
C) Glutamic acid
D) Glutamine
50. The amino acid containing sulphur is
A) Aspartate
B) Histidine
C) Methionine
D) Tyrosine
51. Micro albuminuria which has an important diagnostic value in predicting future renal failure, is represented as
A) <30 mg/day of urinary excretion of albumin
B) 30 - 300 mg/day of urinary excretion of albumin
C) >300mg/day of urinary excretion of albumin
D) >1.0 g/day of urinary excretion of albumin
52. Co-enzyme required for transamination reaction is
A) FAD
B) NADP
C) PLP
D) NAD
53. The normal pH of blood has a range of
A) 7.15-7.25
B) 7.25-7.35
C) 7.35-7.45
D) 7.45-7.55
54. Metabolic acidosis is characterized by
A) Decreased HCO_3
B) Increased HCO_3
C) Decreased pCO_2
D) Increased pCO_2
55. Isosthenuria is related to urine
A) Osmolality
B) Specific gravity
C) Density
D) Turbidity
56. Wrong anticoagulant is a
A) Pre analytical error
B) Analytical error
C) Post analytical error
D) Mistakes
57. A serious issue with the use of accelerating or decelerating pneumatic tube systems to deliver specimens to the laboratory is the occurrence of
A) Specimen volume loss
B) Specimen breakage
C) Hemolysis
D) Clot formation
58. The term used for closeness of agreement between independent results under stipulated condition
A) Accuracy
B) Precision
C) Trueness
D) Reproducibility
59. Glucose and fructose are giving same type of osazone crystals because the reaction with phenyl hydrazine taking place at
A) C1&C2
B) C2&C3
C) C3&C4
D) C4&C5
60. 15mg% of blood urea nitrogen (BUN).is equivalent to
A) 31.50 mg% of urea
B) 36.0 mg% of urea
C) 36.15 mg% of urea
D) 32.10 mg% of urea

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61. 5-Hydroxy Indole Acetic Acid is the end product of
A) Catecholamine
B) Serotonin
C) Indole
D) Acetic acid
62. Linoleic acid is a polyunsaturated fatty acid. Positions of double bonds are at carbon
A) 9, 12
B) 9, 12, 15
C) 12, 15
D) 9, 15
63. Most popular substrate for the estimation of alkaline phosphatase enzyme, being currently used, is:
A) Glycerol PO₄
B) Disodium phenyl PO₄
C) Para nitro phenyl PO₄
D) Thymolphthalein PO₄
64. The most likely cause for serum/plasma to appear "milky" is the presence of
A) Very low density lipoprotein
B) Low density lipoprotein
C) High density lipoprotein
D) Chylomicron
65. The Apo lipoprotein present in Low Density Lipoprotein
A) ApoB48
B) ApoB100
C) ApoA
D) ApoC
66. Wilson's disease is associated with reduced concentration of
A) Albumin
B) Transferrin
C) Ceruloplasmin
D) Fibrinogen
67. Glucose oxidase oxidises glucose to H₂O₂ and
A) Gluconic acid
B) Glucuronic acid
C) Glucosaccharic acid
D) Glyoxylate
68. Which is the vitamin not found in foods of plant origin?
A) D
B) B1
C) B6
D) B12
69. Chloride shift involves
A) H⁺ leaving the RBC for each Chloride ion that enters
B) HCO₃ leaving the RBC in exchange of chloride ion
C) H₂CO₃ leaving the RBC in exchange of chloride
D) K⁺ accompanying each chloride ion
70. Inhibitory neurotransmitter Gama Amino Butyric Acid is synthesized from
A) Glutamate
B) Butyrate
C) Glutamine
D) Glycine
71. is the best fixative used for electron microscopy specimen?
A) Mercuric chloride
B) Formaldehyde
C) Glutaraldehyde
D) Potassium dichromate
72. The microtome used for cutting large block of tissues is.....
A) Sledge microtome
B) Sliding microtome
C) Rocking microtome
D) Ultrathin microtome
73. Among the following which stain is used for the demonstration of spirochetes
A) Ziehl - Neelsen stain
B) Warthin - starry stain
C) Masson's trichrome stain
D) Congo red stain
74. is an example for naturally ripened hematoxylin.
A) Harris hematoxylin
B) Ehrlich's hematoxylin
C) Mayer's hematoxylin
D) Cole's haematoxylin
75. Is an example for formic acid containing decalcifying fluid
A) Von Ebner's fluid
B) Perenyi's fluid
C) Gooding and steward's fluid
D) Jenkin's fluid

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76. is the histopathological staining technique used for demonstration of Hepatitis B surface antigen
A) Shorr technique
B) Shikata's orcein method
C) Von kossa stain
D) Lissamine red method
77. Frozen section are cut at.....
A) 4 - 10 μ
B) 2 - 3 μ
C) 10 - 20 μ
D) Only at 5 μ
78. Another term used for deparafinization is
A) Hydrate
B) Dehydrate
C) Decerate
D) Infiltrate
79. Which among the following is **NOT** a natural dye
A) Orcine
B) Brazilin
C) Litmus
D) Rose Bengal
80. The color of collagen in Massion's trichrome stained slide is
A) Red
B) Blue
C) Yellow
D) Black
81. An auxochrome is
A) A replacement for chromophore
B) A group of benzene ring
C) The same as quinoid
D) The auxiliary group which imparts charge to the chromogen to stain tissue
82. A specific immune marker for Hodgkin's disease is
A) CK
B) CD30
C) LCA
D) CD117
83. Which of the following **DO NOT** contain mercuric chloride
A) Helly's fluid
B) Heidenhain's Susa
C) Gendre's fluid
D) Zenker's fluid
84. The cytoplasmic stain used in Papanicolaou's stain is.....
A) Orange G and Hematoxylin
B) Orange G and Light Green
C) Eosin and Light Green
D) Hematoxylin and Eosin
85. Is used as a mounting medium for fat stain
A) DPX
B) Glycerin jelly
C) Fructose syrup
D) Canada Balsam
86. is the most commonly used clearing agent
A) Xylene
B) Chloroform
C) Cedar wood oil
D) Benzene
87. is an example for artificial hone.
A) Arkansas
B) Belgian yellow
C) Belgian black
D) Carborundum
88. Example of a coagulant fixative
A) Ethyl alcohol
B) Glutaraldehyde
C) Chromium trioxide
D) Osmium tetroxide
89. Stain is used for demonstration of hemosiderin.
A) Van Gieson stain
B) Congo red stain
C) Perl's Prussian stain
D) PAS stain
90. is used to check the potency of Schiff's reagent.
A) Formaldehyde
B) Methanol
C) Chloroform
D) Acetone
91. The ketone test area on a dip stick is impregnated with
A) Alkaline copper
B) Nitroprusside
C) Ferric chloride
D) 2,4 dichloraniline

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92. Macro- ovalocytes are seen in
A) Megaloblastic anemia
B) Sideroblastic anemia
C) Aplastic anemia
D) Hemolytic anemia
93. The cola coloured urine is seen with
A) Alkaptonuria
B) Intravascular hemolysis
C) Acute pyelonephritis
D) Extravascular hemolysis
94. CSF forms cob web on standing in
A) Viral meningitis
B) Pyogenic meningitis
C) Tuberculous meningitis
D) Fungal meningitis
95. Urine sample for bacteriological examination should be.....
A) First catch
B) Timed specimen
C) 12 hours specimen
D) Midstream
96. CSF is usually obtained by.....
A) Venepuncture
B) Skin puncture
C) Paracentesis
D) Lumbar puncture
97. Strongly alkaline stool is seen with excess _____ diet.
A) Carbohydrate B) Lipid C) Protein D) Calcium
98. High fructose levels in semen is associated with.....
A) High sperm count
B) Low sperm count
C) Normal sperm count
D) Azoospermia
99. Urine out put > 2000ml/day is considered as.....
A) Anuria B) Nocturia C) Polyuria D) Oliguria
100. Polychromasia corresponds to increased
A) Reticulocytes B) Red cells C) Ovalocytes D) Basophils

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ANSWER KEY

1	A	26	C	51	B	76	B
2	B	27	B	52	C	77	A
3	A	28	A	53	C	78	C
4	C	29	B	54	A	79	D
5	B	30	C	55	B	80	B
6	A	31	B	56	A	81	D
7	C	32	A	57	C	82	B
8	A	33	C	58	B	83	C
9	A	34	C	59	A	84	B
10	A	35	A	60	D	85	B
11	D	36	D	61	B	86	A
12	B	37	A	62	A	87	D
13	A	38	B	63	C	88	A
14	B	39	D	64	D	89	C
15	C	40	B	65	B	90	A
16	D	41	A	66	C	91	B
17	D	42	D	67	A	92	A
18	C	43	A	68	D	93	A
19	B	44	B	69	B	94	C
20	D	45	A	70	A	95	D
21	D	46	A	71	C	96	D
22	D	47	B	72	A	97	C
23	A	48	A	73	B	98	A
24	A	49	A	74	B	99	C
25	B	50	C	75	C	100	A

Kant