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ROLL NUMBER:

WRITTEN TEST FOR TECHNICAL ASSISTANT (LAB) - A

DATE: 03/10/2019

DURATION: 120 MINUTES

TØTAL 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.
- 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.
- Candidate should hand over the Answer Sheet to the invigilator before leaving the examination hall.

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1.	Which among the following bacteria produce pigment which is a virulence
	determinant?
	A) Corynebacterium species C) Mycobacterium tuberculosis
	B) Pseudomonas aeruginosa D) Streptococcus pyogenes
2.	the second secon
	in liver and spleen grows a gram-negative bacillus with bipolar safety pin
	appearance. Identify the causative pathogen.
	A) Brucella abortus C) Salmonella Typhi
	B) Burkholderia pseudomallei D) Yersinia pestis
3.	Which of the following fungi is most likely to be found within reticuloendothelial cells
	A) Histoplasma capsulatum C) Cryptococcus neoformans
	B) Sporothrix schenckii D) Candida albicans
4.	An elderly male patient presented with fever, chest pain and dry cough. Sputum
	culture showed growth on Charcoal Yeast Extract Medium. The organism is,
	A) Haemophilus influenzae C) Legionella pneumophila
	B) Moraxella cartarrhalis D) Burkholderia cepacia
5.	A girl who pricked her finger while pruning some rose bushes develops a local
	pustule that progresses to an ulcer. Several nodules then develop along the local
	lymphatic drainage. The most likely agent is,
	A) Aspergillus fumigatus C) Cryptococcus neoformans
	B) Sporothrix schenckii D)Candida albicans
6.	
	with
	A) Blastomycosis, Cryptococcosis, and Sporotrichosis
	B) Mycetoma, Candidiasis and Mucormycosis
	C) Tinea corporis, Tinea unguium, and Tinea versicolor
	D) Sporotrichosis, Mycetoma and Aspergillosis
7.	Spiral bacteria isolated from EMJH media inoculated with blood specimen is
	A) Borrelia recurrentis C) Leptospira interrogans
	B) Borrelia vincenti D) Treponema pallidium
8.	A 17-year-old girl came to OPD with complaint of toe nail discolouration. The nail
	clippings were sent to lab for culture. On microscopy with KOH mount numerous
	thin, septate hyphae were seen. Culture on SDA showed fungal growth which on
	LPCB mount revealed slender septate hyphae with numerous oval microconidia and
	few pencil shaped macroconidia. The most probable pathogen is,
	A) Trichophyton rubrum C) Epidermophyton floccosum
	B) Microsporum gypseum D) Malassezia furfur
9.	A 35-year-old gardener visited the OPD with complaint of an ulcer on dorsum of
	right hand and swelling of right arm for 4 weeks. On examination, there were
	erythematous streaks on right arm and right axillary lymph node was palpable. A
*	biopsy from ulcer for histopathological examination revealed presence of planate
	dividing muriform bodies. What is the most likely diagnosis?
	B) Cutaneous blastomycosis D) Phaeohyphomycosis

10.	A 10-year-old boy has a painful arm that he the	
	The pain worsened over a 2-week period and h	
	ray of the humerus reveals raised periosteum	
	of lesion reveals gram-positive cocci. The most infection would be,	t common organism causing such an
	A) Staphylococcus aureus	C) Streptococcus agalactiae
		D) Enterococcus faecalis
11.	. Gram smear of sputum specimen shows numer	
	positive branched filaments. The filaments were	
	grew in aerobic culture. Which organism is mos	
	A) Actinomyces israelii	C) Fusobacterium nucleatum
	B) Corynebacterium diphtheriae	D) Nocardia asteroides
12.	. Broad, aseptate ribbon like hyphae were seen in	n H & E stain of tissue specimen from
	a diabetic patient with maxillary sinusitis pr	ogressing to necrosis of palate and
	periorbital oedema. Identify the sexual spores p	roduced by this fungus.
	A) Ascospores B) Zygospores C)	Arthrospores D) Basidiospores
13.	. A lymph node aspirate was growing gram-nega	tive bacilli which exhibited stalactite
	growth in ghee broth. Identify the mode of trans	smission of this disease.
	A) Bite of an insect vector	C) Inhalation of respiratory droplets
	B) Ingestion of unpasteurized milk	D) Unprotected sexual contact
14.	. The morphological forms of elementary body ar	nd reticulate body are seen in
	A) Bartonella henselae	C) Coxiella burnetti
		D) Mycoplasma pneumoniae
15.	. The test of choice for diagnosing carrier state for	or Salmonella Typhi in food handlers
	is	
		C) Faeces culture
		D) Urinary antigen detection
16.	An increase in the levels of ASO titre in a	
	Rheumatic fever is suggestive of prior infection	
		C) Streptococcus pneumonia
	, 1	D) Streptococcus pyogenes
17.	A 8 year old boy presents to emergency room	the state of the s
	Examination of the pus from wound is found	to contain small gram-negative rods.
	The MOST probable cause of infection is,	C) II - 1 - 1 - 1 - 1 - 1
		C) Haemophillus influenzae
		D) Pasteurella multocida
	. The causative agent of Traveller's diarrhoea is	
	,	C) Enterotoxigenic E. coli
		D) Enteropathogenic E. coli
	. Standard agglutination test is done for diagnosi	
		Leptospirosis D) Salmonellosis
20.	A physician ordered for urine culture in a patie	
	tract infections who had renal calculi. A urina	
	agar surfaces was isolated in the laboratory. The	
		C) Klebsiella oxytoca
	B) Escherichia coli	D) Proteus mirabilis

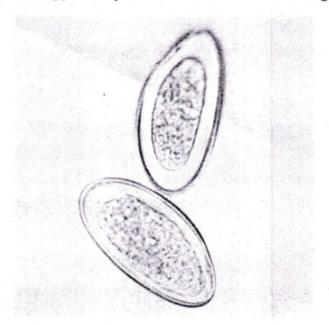
- 21. Which of the following is TRUE about infections with anaerobic bacteria?
 - A) Swabs are the ideal specimens for diagnosis
 - B) Specimens collected are transported at 2-8°c
 - C) Etiological diagnosis is not needed as they are universally susceptible to Metronidazole
 - D) Are usually polymicrobial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

C) Coccidioides

B) Blastomycosis

D) Dermatophytosis

23. The egg corresponds to which of the following?



A) Enterobius vermicularis

C) Babesia spp.

B) Endolimax nana

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) lodameba butschlii

C) Entamoeba histolytica

B) Naegleria fowleri

- 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) Trypanosomiais
- 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

C) Selective medium

B) Enriched medium

D) Differential medium

30. Which among the bacterial spores can v	vithstand the moist heat effect
A) Bacillus subtilis	C) Bacillus stearothermophilus
B) Coxiella burnetti	D) Pseudomonas
31. Transmission of which infection through	h 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 l	peneficial 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 v	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 treatmer	nt with enzyme
A) Rh B) Duffy	C) Kidd D) Lewis
39. Which of the following is not correctly r	natched
A) FFP Liver failure	
B) PRBC Sickle cell anemia	
C) Platelet Thrombocytopenia	
D) Cryoprecipitate Factor V defic	ciency
40. Minimum weight required for whole bloom	ood donation in India
	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 biosynthesi	
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

46. A xanthochromic CSF indicates		
A) Intracranial hemorrhage	C) Viral meningitis	5
B) Traumatic tap	D) Bacterial menir	ngitis
47. Reference range of serum uric acid level i	-	
A) 0.3 - 0.9mg/dl	C) 12 - 15 mg/dl	
B) 3 - 7 mg/dl	D) 1.2 - 3.5 mg/dl	
48. Sulkowich's test is used for		
A) Urinary calcium estimation	C) Urinary cholest	erol estimation
B) Urinary chloride estimation	D) Urinary copper	
49. Amino acid involved in hippuric acid test		
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 importai		, ,
failure, is represented as		•
A) <30 mg/day of urinary excretion of all	oumin	
B) 30 - 300 mg/day of urinary excretion		
C) >300mg/day of urinary excretion of al		
D) >1.0 g/day of urinary excretion of albu		
52. Co-enzyme required for transamination r		
A) FAD B) NADP	C) PLP	D) NAD
53. The normal pH of blood has a range of	3).	2)2
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	5) 1.00 1.10	2) ////0 ///00
A) Decreased HCO ₃	C) Decreased pCO ₂	
B) Increased HCO ₃	D) Increased pCO2	
55. Isosthenuria is related to urine	b) mereasea pooz	
A) Osmolality B) Specific gravity	y C) Density	D) Turbidity
56. Wrong anticoagulant is a	, a) Denotey	2) Turbiary
A) Pre analytical error	C) Post analytical erro	or
B) Analytical error	D) Mistakes	•
57. A serious issue with the use of accelerating		c tube systems to
deliver specimens to the laboratory is the		c tube by bremie to
A) Specimen volume loss	C) Hemolysis	
B) Specimen breakage	D) Clot formation	
58. The term used for closeness of agreemen		lts under stipulated
condition	,	
A) Accuracy B) Precision	C) Trueness	D) Reproducibility
59. Glucose and fructose are giving same type		
phenyl hydrazine taking place at		e ce = 5
A) C1&C2 B) C2&C3	C) C3&C4	D) C4&C5
60. 15mg% of blood urea nitrogen (BUN) is ϵ		-, -, -, -, -, -, -, -, -, -, -, -, -, -
A) 31.50 mg% of urea	C) 36.15 mg% of t	ırea
B) 36.0 mg% of urea	D) 32.10 mg% of t	
_,	-, 6,001	

61. 5-Hydroxy Indole Ad	etic Acid is the end	product o	of	
A) Catecholamine			C) Indole	
B) Serotonin			D) Acetic acid	
62. Linoleic acid is a pol	yunsaturated fatty a	acid. Posit	ions of double bo	nds are at carbon
A) 9, 12			C) 12, 15	
B) 9, 12, 15			D) 9, 15	
	ate for the estimation	on of alkal		enzyme, being currently
used, is:			0 D 1: 1	100
A) Glycerol PO ₄			C) Para nitro ph	
B) Disodium phenyl			D) Thymolphtha	
64. The most likely caus		to appea	The second secon	
A) Very low density l			C) High density l	ipoprotein
B) Low density lipop			D) Chylomicron	
65. The Apo lipoprotein	•	isity Lipop	orotein	
A) ApoB48	B) ApoB100		C) ApoA	D) ApoC
66. Wilson's disease is a	ssociated with redu	ced conce	entration of	
A) Albumin	B) Transferrin	(C)	Ceruloplasmin	D) Fibrinogen
67. Glucose oxidase oxid	lises glucose to H ₂ O	2 and		
A) Gluconic acid		(C)	Glucosaccharic a	cid
B) Glucuronic acid		D)	Glyoxylate	
68. Which is the vitamin	n not found in foods	of plant of	origin?	
A) D	B) B1	C)	B6	D) B12
69. Chloride shift involv	es			
A) H+ leaving the RB	C for each Chloride	ion that e	nters	
B) HCO ₃ leaving the	RBC in exchange of	chloride i	on	
C) H ₂ CO ₃ leaving the				
D) K+ accompanying				
70. Inhibitory neurotrar		o Butyric	Acid is synthesize	ed from
A) Glutamate			C) Glutamine	
B) Butyrate			D) Glycine	
71 is	the best fixative use	ed for elec		specimen?
A) Mercuric chlorid			Glutaraldehyde	
B) Formaldehyde			Potassium dichr	omate
72. The microtome used	for cutting large blo			
A) Sledge microtom			Rocking microto	
B) Sliding microtom			Ultrathin microt	
73. Among the following				
A) Ziehl – Neelsen s			Masson's trichro	
B) Warthin – starry				ille stalli
		-	Congo red stain	
74is an exam				11
A) Harris hematoxy			Mayer's hemato	
B) Ehrlich's hemato			Cole's haematox	
75 Is				
A) Von Ebner's fluid B) Perenvi's fluid			Gooding and ster	ward's fluid
DI Perenvis fillid		1))	lenkin's fluid	

76 is the histopathological staining	ng technique used for demonstration o	f
Hepatitis B surface antigen		
A) Shorr technique	C) Von kossa stain	
B) Shikata's orcein method	D) Lissamine red method	
77. Frozen section are cut at		
A) $4-10 \mu$ B) $2-3 \mu$	C) 10 – 20 μ D) Only at	t 5 μ
78. Another term used for deparafinization is		
A) Hydrate B) Dehydrate	C) Decerate D) In	filtrate
79. Which among the following is NOT a natura	al dye	
A) Orcine B) Brazilin	C) Litmus D) Rose Bo	engal
80. The color of collagen in Massion's trichrome	e stained slide is	
A) Red B) Blue	C) Yellow D) Bl	ack
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 charg 	ge to the chromogen to stain tissue	
82. A specific immune marker for Hodgkin's dis		
A) CK B) CD30	C) LCA D) CD	117
83. Which of the following DO NOT contain mer	curic chloride	
A) Helly's fluid	C) Gendre's fluid	
B) Heidenhain's Susa	D) Zenker's fluid	
84. The cytoplasmic stain used in Papanicolaou's	s stain is	
A) Orange G and Hematoxylin	C) Eosin and Light Green	
B) Orange G and Light Green	D) Hematoxylin and Eosin	
85 Is used as a mounting medium	for fat stain	
A) DPX	C) Fructose syrup	
B) Glycerin jelly	D) Canada Balsam	
86 is the most commonly used	clearing agent	
A) Xylene B) Chloroform	C) Cedar wood oil D) Benzen	e .
87 is an example for artificial h	none.	
A) Arkansas B) Belgian yellow	C) Belgian black D) Carbor	undum
88. Example of a coagulant fixative		
A) Ethyl alcohol	C) Chromium trioxide	
B) Glutaraldehyde	D) Osmium tetroxide	
89 Stain is used for demonstrate	tion of hemosiderin.	
A) Van Gieson stain	C) Perl's Prussian stain	
B) Congo red stain	D) PAS stain	
90 is used to check the potency of	f Schiff's reagent.	
A) Formaldehyde B) Methanol		
91. The ketone test area on a dip stick is impregr		
A) Alkaline copper	C) Ferric chloride	
B) Nitroprusside	D) 2.4 dichloraniline	

92. Macro- ovalocytes are seen in	
A) Megaloblastic anemia	C) Aplastic anemia
B) Sideroblastic anemia	D) Hemolytic anemia
93. The cola coloured urine is seen with	-, memory the unlenna
A) Alkaptonuria	C) Acute pyelonephritis
B) Intravascular hemolysis	D) Extravascular hemolysis
94. CSF forms cob web on standing in	
A) Viral meningitis	C) Tuberculous meningitis
B) Pyogenic meningitis	D) Fungal meningitis
95. Urine sample for bacteriological examination	should be
A) First catch	C) 12 hours specimen
B) Timed specimen	D) Midstream
96. CSF is usually obtained by	
A) Venepuncture	C) Paracentesis
B) Skin puncture	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 wi	th
A) High sperm count	C) Normal sperm count
B) Low 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

ANSWER KEY

_			1111011	LKKLI			
1	A	26	С	51	В	76	В
2	В	27	В	52	С	77	A
3	A	28	Α	53	С	78	С
4	С	29	В	54	Α	79	D
5	В	30	С	55	В	80	В
6	A	31	В	56	A	81	D .
7	С	32	Α	57	С	82	В
8	A	33	С	58	В	83	С
9	A	34	С	59	Α	84	В
10	A	35	Α	60	D	85	В
11	D	36	D	61	В	86	A
12	В	37	Α	62	A	87	D
13	Α	38	В	63	С	88	A
14	В	39	D	64	D	89	C ·
15	С	40	В	65	В	90	Α .
16	D	41	Α	66	С	91	В
17	D	42	D	67	Α	92	A
18	С	43	A	68	D	93	Α
19	В	44	.В	69	В	94	С
20	D	45	Α	70	A	95	D
21	D	46	A	71	С	96	D
22	D	47	В	72	A	97	С
23	A	48	A	73	В	98	Α
24	A	49	A	74	В	99	С
25	В	50	С	75	С	100	A

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