

Sr No.	PhD Medical Microbiology
1	Find the missing term in the following series: 3,10,29,66,127...?
Alt1	164
Alt2	187
Alt3	216
Alt4	218

2	Choose word from the given options which bears the same relationship to the third word, as the first two bears: Flower : Butterfly :: Dirt :?
Alt1	Rats
Alt2	Fly
Alt3	Bugs
Alt4	Sweeper

3	Tiff is to Battle as Frugal is to .....?.....
Alt1	Sprint
Alt2	Vague
Alt3	Miserly
Alt4	Vital

4	Select the lettered pair that has the same relationship as the original pair of words: Expend: Replenish
Alt1	Exhort: Encourage
Alt2	Formant: Rebellion
Alt3	Defect: Rejoin
Alt4	Encroachment: Occupy

5	Choose the set that has the same relationship as in the original: Bone : Skeleton : Nerve
Alt1	House: Door: Window
Alt2	Spoke: Wheel: Handle
Alt3	Retina: Eye: Pupil
Alt4	Snow: Cloud: Ice

6	Spot the defective segment from the following:
Alt1	Only with your help
Alt2	I passed the test
Alt3	though you helped me
Alt4	at the last minute

7	The government proposes to ----- hanging.
Alt1	cancel
Alt2	nullify
Alt3	invalidate

Alt4	abolish
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8	The burglar was hit -----.
Alt1	on head
Alt2	on his head
Alt3	on the head
Alt4	in the head

9	Choose the option closest in meaning to the given word: COGENT
Alt1	consistent
Alt2	acceptable
Alt3	convincing
Alt4	weak

10	Choose the antonymous option you consider the best: PROVIDENT
Alt1	careful
Alt2	worldly
Alt3	prodigal
Alt4	frugal

11	Ravi's brother is 3 years senior to him. His father was 28 years of age when his sister was born while his mother was 26 years of age when he was born. If his sister was 4 years of age when his brother was born, what was the age of Ravi's father and mother respectively when his brother was born ?
Alt1	32 years, 23 years
Alt2	32 years, 29 years
Alt3	35 years, 29 years
Alt4	35 years, 33 years

12	<p>In each of the following questions some statements are followed by two conclusions (i) and (ii). Read the statements carefully and then decide which of the conclusions follow beyond a reasonable doubt. Mark your answer as&lt;br&gt;</p> <p>Statement: All my films are copies. I am happy to inform of the source when I copy – a producer &lt;br&gt;</p> <p>Conclusions:&lt;br&gt;</p> <p>(i) The producer does not make even a single film based on his own idea&lt;br&gt;</p> <p>(ii) The producer copies domestic and foreign films&lt;br&gt;</p>
Alt1	If only conclusion (i) follows
Alt2	If only conclusion (ii) follows
Alt3	If neither conclusion (i) nor (ii) follows
Alt4	If both the conclusions follow

13	3. What value should come in place of question mark (?) in the following number series? 14, 28, 46, ?, 94, 124
Alt1	64
Alt2	68
Alt3	72
Alt4	76

14	In a certain code ADVENTURES is written as TDRESAUVEN. How is SURPRISING written in that code ?
Alt1	IUIPGSRSNR
Alt2	IUINGSSRRP
Alt3	IUIPGSSRNR
Alt4	IRIPGSSNRR

15	Wax is related to Grease in the same way as Milk is related to
Alt1	Drink
Alt2	Ghee
Alt3	Curd
Alt4	Protein

16	The following information is given: Six persons A, B, C, D, E and F are sitting in two rows, three in each. E is not at the end of any row. D is second to the left of F. C, the neighbour of E, is sitting diagonally opposite to D. B is the neighbour of F. After interchanging seat with E, who will be the neighbours of D in the new position ?
Alt1	C and A
Alt2	F and B
Alt3	Only B
Alt4	Only A

17	If 30 students occupy $\frac{2}{3}$ of the seats in a classroom, how many students would occupy $\frac{4}{5}$ of the seats in the classroom?
Alt1	36
Alt2	32
Alt3	40
Alt4	48

18	Mean of the first 10 odd numbers is
Alt1	10
Alt2	13
Alt3	15
Alt4	9

19	Two numbers are in the ratio 2:3, If 4 be subtracted from each, they are in the ratio 3:5, Find the numbers.
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Alt1	16,24
Alt2	20,30
Alt3	0.341666667
Alt4	None

20	It takes 30 seconds to cut the woodlock into 3 pieces.How much time does it takes to cut the same block into 4 pieces?
Alt1	40secs
Alt2	45secs
Alt3	50secs
Alt4	60secs

21	In Japanese encephalitis pigs act as:-
Alt1	Intermediate host
Alt2	Definitive host
Alt3	Facultative host
Alt4	Amplifier

22	Tyndallisation is a type of :-
Alt1	Boiling
Alt2	Autoclaving
Alt3	Intermittent sterilisation
Alt4	Pasteurization

23	Infection not transmitted transplacentally is:-
Alt1	Polio
Alt2	EB virus
Alt3	Herpes
Alt4	CMV

24	All occurs in botulism except:-
Alt1	Dysphagia
Alt2	Dysarthria
Alt3	Diarrhoea
Alt4	Diplopia

25	The holding time of an autoclave is:-
Alt1	161°C for 15 minutes at 15psi
Alt2	151°C for 30 minutes at 15psi
Alt3	121°C for 15 minutes at 15psi
Alt4	111°C for 15 minutes at 15psi

26	Which of the following immunoglobulin that is normally transported across the placenta and provides natural passive immunity in the newborn?
Alt1	IgM
Alt2	IgG
Alt3	IgD

Alt4	IgA
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27	Biological control used in determining the efficacy of autoclave are the spores of:-
Alt1	Clostridium perfringes
Alt2	Bacillus cereus
Alt3	Bacillus stearothermophilus
Alt4	Clostridium histolyticum

28	Rheumatic fever is caused by:-
Alt1	Treponema pallidum
Alt2	Streptococcus pyrogenes
Alt3	Clostridium botulinum
Alt4	Salmonella typhi

29	Horseradish peroxidase and alkaline phosphatase are the two enzymes commonly utilized as reagents in ELISA, because these enzymes:-
Alt1	Have high turnover number
Alt2	Bind to ELISA plates
Alt3	Are very small
Alt4	Are colored proteins

30	Plants and some bacteria differs from animals in the plants and some bacteria can:-
Alt1	Form polymers to glucose
Alt2	Use glucose by glycolytic pathway
Alt3	Use CO <sub>2</sub> to increase their biomass
Alt4	Use galactose by glycolytic pathway

31	Traveler's Diarrhea is caused by?
Alt1	EHEC
Alt2	EPEC
Alt3	ETEC
Alt4	EIEC

32	The eukaryotic mitochondria is more similar to:-
Alt1	Protist
Alt2	Virus
Alt3	Moulds
Alt4	Bacteria

33	The specialized structure located at the end of the eukaryotic chromosomes called as:-
Alt1	Centromeres
Alt2	Long terminal repeats
Alt3	Terminators
Alt4	Telomeres

34	Formation of glucose from acetyl CoA is called:-
Alt1	Glycolysis

Alt2	TCA cycle
Alt3	Gluconeogenesis
Alt4	Glycogenesis

35	Spore staining involves the use of:-
Alt1	crystal violet and safranin
Alt2	methylene blue and carbolfuchsin
Alt3	lactophenol cotton blue
Alt4	malachite green and safranin

36	Bacterial cells can be rendered more permeable to the uptake of plasmids by treatment with:-
Alt1	Calcium phosphate
Alt2	Heat
Alt3	Ultrasound or magnetism
Alt4	Alkali detergent

37	Viruses require _____ for growth.
Alt1	living cells
Alt2	animals
Alt3	bacteria
Alt4	plants

38	Among the following which is true cell according cell theory?
Alt1	Protostans
Alt2	Bacteria
Alt3	Monerans
Alt4	Virus

39	Which of the following is NOT required by Chemolithotrophs for manufacturing their own food?
Alt1	Chemical substances
Alt2	Light
Alt3	Nitrogen
Alt4	Water

40	Indol test positivity is indicated by presence of:-
Alt1	A red ring
Alt2	Colour change to yellow
Alt3	Colour change to blue
Alt4	Increased turbidity

41	In genetic fingerprinting, the 'probe' refers to _____.
Alt1	a radioactively labelled double stranded DNA molecule
Alt2	a radioactively labelled double stranded RNA molecule
Alt3	a radioactively labelled single stranded DNA molecule
Alt4	a radioactively labelled single stranded RNA molecule

42	Which chemical is used for cryo-preservation?
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Alt1	Thiourea
Alt2	DMSO
Alt3	PITC
Alt4	DCMU

43	Segmented RNA is found in:-
Alt1	Influenza virus
Alt2	Herpes virus
Alt3	Molluscumcontagiosum virus
Alt4	Rabies virus

44	Rice water stools are characteristic of infection with:-
Alt1	Shigella flexneri
Alt2	Salmonella typhi
Alt3	Vibrio cholera
Alt4	Escherichia coli

45	Ebolavirus is a member of which family of viruses?
Alt1	Coronavirus
Alt2	Filovirus
Alt3	Retrovirus
Alt4	Togavirus

46	In DNA, the deoxygenation happens at:-
Alt1	4th carbon atom
Alt2	3rd carbon atom
Alt3	2nd carbon atom
Alt4	1st carbon atom

47	Which is essential for evolution?
Alt1	Natural selection
Alt2	Meiosis
Alt3	Mutation
Alt4	Reproduction

48	Lyme's disease is caused by the spirochete:-
Alt1	Leptonema
Alt2	Treponema
Alt3	Borrelia
Alt4	Leptospira

49	Which class does the first formed antibody belong?
Alt1	IgM
Alt2	IgE
Alt3	IgG
Alt4	IgA

50	New glasswares are slightly alkaline so soak in:-
Alt1	2% HCl
Alt2	5% HCl
Alt3	2% NaOH
Alt4	5% NaOH

51	RNA molecule that exhibit catalytic activity are called:-
Alt1	Robozymes
Alt2	mRNAs
Alt3	Robosomes
Alt4	Ribonucleases

52	Fungi without sexual cycle are classified as:-
Alt1	Phycomysis
Alt2	Fungi imperfecti
Alt3	Basidiomycetes
Alt4	Ascomycetes

53	Conversion of nitrite to nitrate in soil is done by the bacteria of genus:-
Alt1	Azotobacter
Alt2	Nitrobacter
Alt3	Pseudomonas
Alt4	Nitrosomonas

54	Bacteria belongs to:-
Alt1	Protista
Alt2	Plantae
Alt3	Monera
Alt4	Fungi

55	DNA sequencing method was proposed by:-
Alt1	Hershey
Alt2	Sanger
Alt3	Crick
Alt4	Watson

56	Which of the following is transmitted by Rat urine?
Alt1	Leptospira
Alt2	Legionella
Alt3	Mycoplasma
Alt4	Listeria

57	Circulation of bacteria in blood is known as:-
Alt1	Bacteremia
Alt2	Septicemia
Alt3	Viremia
Alt4	Pyemia



58	Wheel shaped virus is :-
Alt1	Adenovirus
Alt2	Rabies virus
Alt3	Polio virus
Alt4	Rotavirus

59	The following Messenger RNA codons encode Methionine:-
Alt1	AGU
Alt2	GUA
Alt3	AUG
Alt4	UGG

60	Germtube test is the confirmative test for:-
Alt1	Penicillin notatum
Alt2	Aspergillusniger
Alt3	Candida albicans
Alt4	Cryptosporidium sps

61	A metastatic cancerous tissue is termed 'sarcoma' if the disorder is in:-
Alt1	Immune system
Alt2	Fibroblasts
Alt3	Circulatory system
Alt4	Epithelial cells

62	In Electron Microscopy the type of illumination used is:-
Alt1	Gamma rays
Alt2	Electron beams
Alt3	Ultra violet rays
Alt4	Infra-red beams

63	Corynebacteriumdiphtheriae can be grown within 6-8 hours on:-
Alt1	McConkey's agar
Alt2	Dorset egg medium
Alt3	Loeffler's serum slope
Alt4	Pottassium tellurite media with iron

64	Sporulation occurs in:-
Alt1	Decline phase
Alt2	Stationary phase
Alt3	Log phase
Alt4	Lag phase

65	Which medium allows for the detection of various morphological or biochemical properties?
Alt1	Characteristic
Alt2	Differential
Alt3	Selective

Alt4	Enrichment
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66	The genome of Hepatitis B virus consist of :-
Alt1	Single stranded DNA
Alt2	Single stranded RNA
Alt3	Double stranded RNA
Alt4	Double stranded DNA

67	The viruses in an attenuated vaccine:-
Alt1	are usually larger than bacteria
Alt2	continue to replicate
Alt3	is altered with chemicals
Alt4	have no genome

68	Which one of this could be called as stop codon?
Alt1	UAA UAG UGA
Alt2	UGU UUG UGG
Alt3	UUA GAU GGU
Alt4	UUU GUU GUG

69	Toxic shock syndrome toxin (TSST) are characteristic features of which bacterial agent:-
Alt1	Neisseria Meningitidis
Alt2	Leptospirainterrogans
Alt3	Staphylococcus aureus
Alt4	Bacillus anthracis

70	The enzyme responsible for removing the primer and filling the gap with DNA is:-
Alt1	RNA primase
Alt2	DNA polymerase
Alt3	Helicase
Alt4	RNA polymerase

71	Which of the following is not required for RecA dependent recombination between two DNA molecules?
Alt1	Ligation
Alt2	Nuclease digestion
Alt3	Mismatch repair
Alt4	Strand Migration

72	Most of the endangered species are the victims of:-
Alt1	Habitat destruction
Alt2	Acid rain
Alt3	Competition with introduced species
Alt4	Over-hunting

73	If bacteria possess two copies of certain genes then they are referred as:-
Alt1	Amphidiploid

Alt2	Euploid
Alt3	Merodiploid
Alt4	Polyploid

74	Blocking action of enzyme through blocking its active site is:-
Alt1	Feedback inhibition
Alt2	Allosteric inhibition
Alt3	Non-competitive inhibition
Alt4	Competitive inhibition

75	All of the following are features of prokaryotes except:-
Alt1	nitrogen fixation
Alt2	photosynthesis
Alt3	locomotion
Alt4	sexual reproduction

76	The difference between gram +ve and gram -ve organism is the gram -ve organism contains:-
Alt1	N-acetyl neuraminic acid
Alt2	Teichoic acid
Alt3	Aromatic amino acid
Alt4	Muramic acid

77	Macrophages, also called monocytes, have the ability to:-
Alt1	Process and present antigens to T cells
Alt2	Differentiate into dendritic cells when necessary
Alt3	Express IgM molecules on their surface
Alt4	Produce antibodies

78	Any process that results in the integration of new combinations of genes together in a single cell is:-
Alt1	Fusion
Alt2	Genetic recombination
Alt3	Genetic fission
Alt4	Allelotyping

79	The first organism in most natural food chains is:-
Alt1	a herbivore
Alt2	a decomposer
Alt3	photosynthetic
Alt4	carnivorous

80	Which one of the following diseases is caused by Nosemabombycis in mulberry silkworm?
Alt1	Pebrine
Alt2	Flacherie
Alt3	Muscadine
Alt4	Grasserie

81	Which of the following is best to sterilize heat labile (heat unstable) solutions?
Alt1	dry heat
Alt2	pasteurization
Alt3	autoclave
Alt4	membrane filtration

82	The endosymbiosis hypothesis provides an explanation for how:-
Alt1	eukaryotes developed from prokaryotes
Alt2	protozoa developed from algae
Alt3	prokaryotes developed from eukaryotes
Alt4	algae developed from protozoa

83	Which one of the following is polysaccharide?
Alt1	Glycogen
Alt2	Sucrose
Alt3	Lactose
Alt4	Maltose

84	If there is double bond between A & T and triple bond between G & C, then which sequence will be most stable at higher temperature?
Alt1	ATTGTACCAA
Alt2	AATTATATATA
Alt3	AGCAGAGAGTT
Alt4	AGGCCGGCCCTA

85	The number of ATP produced when a molecule of glucose undergoes fermentation is:-
Alt1	2
Alt2	36
Alt3	38
Alt4	8

86	At which stage of HIV infection does one usually show symptoms of AIDS?
Alt1	When viral DNA is produced by reverse transcriptase
Alt2	When the infecting retrovirus enters host cells
Alt3	Within 15 days of sexual contact with an infected person
Alt4	When HIV replicates rapidly in helper T-lymphocytes and damages large number of these

87	Microbial drug resistance is an example of:-
Alt1	Attenuation
Alt2	Autotrophic variation
Alt3	Symbiotic dependency
Alt4	Mutation and selection

88	A symbiotic relationship/interaction in which 'one species benefits and the other species is not affected' is referred to as:-
Alt1	Helotism
Alt2	Commensalism

Alt3	Endomycorrhizae
Alt4	Ectomycorrhizae

89	During mitosis Endoplasmic Reticulum and nucleolus begin to disappear at:-
Alt1	Late Prophase
Alt2	Early Metaphase
Alt3	Early prophase
Alt4	Late Metaphase

90	When red blood corpuscles containing both A and B antigens are mixed with your blood serum, they agglutinate. Hence your blood group is _____ type.
Alt1	O
Alt2	B
Alt3	A
Alt4	AB

91	Some viruses have increased the coding potential of their genome by:-
Alt1	using alternative splicing sites
Alt2	covalently linking a protein to the genome
Alt3	Integrating into the host genome
Alt4	using host ribosomes for translation

92	Which of the following have characteristic intracellular inclusion bodies?
Alt1	Mycoplasma
Alt2	Chlamydia
Alt3	Candida
Alt4	E.coli

93	Which of the following is true about a circular double stranded DNA genome that determined by chemical means to be 21 %adenosine?
Alt1	The genome is 29 % of guanosine
Alt2	The genome is 69 % of guanosine
Alt3	The genome is 21 % of guanosine
Alt4	The genome is 10.5 % of guanosine

94	Type IV Hypersensitivity is called as:-
Alt1	Anaphylactic
Alt2	Immune Complex Mediated
Alt3	Cytotoxic stimulating
Alt4	Delayed or Cell mediated

95	Carcinoma refers to:-
Alt1	Malignant tumours of the connective tissue
Alt2	Benign tumours of the connective tissue
Alt3	Malignant tumours of the skin or mucous membrane
Alt4	Malignant tumours of the colon

96	Which of the following is applicable in the case of super antigen?
Alt1	Not recalled
Alt2	Needs to processed and presented to cleft of MHC
Alt3	Rapidly Stimulate Immune memory
Alt4	Directly attached to variable region of MHC

97	Which of the following is not involved in the processing of mRNA precursors in the eukaryotic cells?
Alt1	Transport of pre - mRNA to cytoplasm
Alt2	Capping of 5' end
Alt3	Addition of Poly A
Alt4	Excision of Introns

98	With respect to streptococcus all are true except:-
Alt1	Streptolysin O is active in reduced state
Alt2	Pyrotoxin A is plasmid mediated
Alt3	Streptodornase cleaves dna
Alt4	Streptokinase is produced from serotype strep. A,C,K

99	Which of the following substances will not produce antibodies when injected into an animal?
Alt1	Bacterial polysaccharides
Alt2	DNA
Alt3	Dinitrophenol
Alt4	Actin

100	How would you prepare 2 ml of (0.2N of NaOH & 1 % SDS) Solution from the stock of 10 N NaOH & 10% SDS?
Alt1	100 l & 20 l in 1.88ml of H <sub>2</sub> O
Alt2	200 l & 40 l in 1.76 ml of H <sub>2</sub> O
Alt3	40 l & 200 l in 1.76 ml of H <sub>2</sub> O
Alt4	20 l & 100 l in 1.88ml of H <sub>2</sub> O