

**SOLAPUR UNIVERSITY, SOLAPUR**

**ENTRANCE EXAM 2018**

**SUBJECT :- MICROBIOLOGY**

**Date :-05/06/2018**

**Time :- 10.30 to 12.00**

**Question paper with Answer Key**

**Note :- If any query on question paper and answer key please send mail to [preexam@sus.ac.in](mailto:preexam@sus.ac.in) upto 6.00 pm second day of exam.**

Q.No.	1
Question	The Oxidase test is positive and used for identification of_____
A	Salmonella
B	Pseudomonas
C	Pneumococcus
D	Staphylococcus
Answer	B

Q.No.	2
Question	The interval period between HIV infection and appearance of antibodies in serum is called_____ period.
A	Intrinsic
B	incubation
C	window
D	Interval
Answer	C

Q.No.	3
Question	On Mac Conkey's agar medium Esherichia coli species forms_____colonies.
A	Colour less
B	Greenish
C	Pink
D	Yellow
Answer	C

Q.No.	4
Question	A flatoxin is a poison produced by a fungus, called-----
A	Aspergillus flavus
B	Penicillium spp
C	Corynebacterium
D	B. anthracis
Answer	A

Q.No.	5
Question	<i>Clostridium</i> is _____
A	gram positive and anaerobic
B	gram positive and aerobic
C	gram negative and anaerobic
D	gram negative and aerobic
Answer	A

Q.No.	6
Question	Production of Protein from RNA is called -----
A	Transcription
B	RNA splicing
C	Transposition
D	Translation
Answer	D

Q.No.	7
Question	Peptide bonds are formed between-----
A	Nucleotides
B	Amino acids
C	Glucose
D	sucrose
Answer	B

Q.No.	8
Question	The enzyme required for synthesis of RNA from DNA is-----
A	RNA polymerase
B	reverse transcriptase
C	DNA polymerase
D	terminal transferase
Answer	A

Q.No.	9
Question	A tissue graft or organ transplant from a donor of a different species from the recipient is called-----
A	allograft
B	autograft
C	Xenograft
D	syngenic graft
Answer	C

Q.No.	10
Question	Bacteria need to have organic molecules both for energy and as a source of carbon is called-----
A	Photo autotrophs
B	Photo heterotrophs
C	Chemo heterotrophs
D	Chemo autotrophs
Answer	C

Q.No.	11
Question	----- Sugar is transferred as a result of H gene in ABH blood group system.
A	Acetyl-galactosamine
B	Galactose
C	Fucose
D	Glucose
Answer	C

Q.No.	12
Question	In an autoimmune disease leukopenia antibodies are produced against -----
A	lymphocytes
B	RBC
C	Platelets
D	WBC
Answer	A

Q.No.	13
Question	Myeloma cells used in Hybridoma technique-----
A	have antibody production ability
B	lack HGPRT enzyme
C	have short life span
D	are long lived with antibody production ability
Answer	B

Q.No.	14
Question	-----antibody has valancy Four
A	IgA
B	IgE
C	IgG
D	IgM
Answer	A

Q.No.	15
Question	----- Phage mediates restricted transduction.
A	$\lambda$
B	$\phi$ 80
C	P 22
D	T4
Answer	A

Q.No.	16
Question	Vancomycin antibiotic acts on ----- synthesis.
A	Cell membrane
B	Nucleic acid
C	Protein
D	cell wall
Answer	D

Q.No.	17
Question	Hydrophobia is a symptom of -----
A	Rabies
B	filariasis
C	gas gangrene
D	hepatitis
Answer	A

Q.No.	18
Question	The ultimate electron acceptor in aerobic respiration is
A	Molecular Oxygen
B	NO <sub>3</sub>
C	SO <sub>4</sub>
D	Molecular nitrogen
Answer	A

Q.No.	19
Question	Viruses -----
A	Divide by binary fission
B	have their own metabolism
C	are obligatory intracellular parasites
D	contain enzymes only
Answer	C

Q.No.	20
Question	Viruses can be grown on -----
A	animal tissue culture
B	laboratory animal
C	embryonated hen's egg
D	all of these
Answer	D

Q.No.	21
Question	The source of restriction enzyme EcoRI is the bacterium
A	Bacillus amyloliquefaciens H
B	Haemophilus influenza
C	Escherichia coli
D	Arthrobacter luteus
Answer	C

Q.No.	22
Question	Organism ----- fixes nitrogen symbiotically
A	Rhizobium
B	Azotobacter
C	Spirillum
D	Nostoc
Answer	A

Q.No.	23
Question	The distance between the neighbouring base pairs of DNA is----- A°
A	3.4
B	34
C	19.8
D	340
Answer	A

Q.No.	24
Question	The two strands of DNA helix are held together by -----
A	sulphide bonds
B	phosphate bonds
C	hydrogen bonds
D	van der waal force
Answer	C

Q.No.	25
Question	Ropiness in milk is mainly caused by-----
A	Saccharomyces cerevisiae
B	Cotrichum candidum
C	Alcaligenes viscolactis
D	Proteus vulgaris
Answer	C

Q.No.	26
Question	----- is an initiation codon in translation process.
A	AUG
B	UUU
C	GUG
D	UAG
Answer	A

Q.No.	27
Question	Plasmids having very low molecular weight and do not carry any functional gene are called -----plasmids.
A	virulence
B	cryptic
C	degenerative
D	col
Answer	B

Q.No.	28
Question	Biological specimen observed under a light microscope are usually have size of-----
A	1 nm to 100 nm
B	1 $\mu$ m to 1 mm
C	100 nm to 1nm
D	0.1 nm to 100 nm
Answer	B

Q.No.	29
Question	In fermentation process agitation of the medium is done by using ----- ----
A	antifoam oil
B	impellers
C	baffles
D	centrifugation
Answer	B

Q.No.	30
Question	Immunogenicity depends on-----
A	foreignness
B	chemical complexity
C	molecular size
D	all of these
Answer	D

Q.No.	31
Question	Bacteria in food are generally inhibited by----- % sodium chloride
A	1
B	5
C	0.5
D	0.1
Answer	B

Q.No.	32
Question	Histone proteins which are basic in nature are found in-----
A	prokaryotes
B	eukaryotes
C	viruses
D	actinomycetes
Answer	B

Q.No.	33
Question	Causative agent for bacillary dysentery is-----
A	E. Coli
B	Aspergillus
C	Salmonella
D	Shigella
Answer	D

Q.No.	34
Question	The method of DNA replication proposed by Watson and Crick is ----- -----
A	semi conservative
B	conservative
C	dispersive
D	rolling loop
Answer	A

Q.No.	35
Question	Eutrophication causes a reduction of----- in the water body.
A	Carbon dioxide
B	oxygen
C	nitrogen
D	sulphur dioxide
Answer	B

Q.No.	36
Question	Cholera is regarded primarily as -----borne-infection
A	food
B	air
C	water
D	vegetable
Answer	C

Q.No.	37
Question	Alcohol fermentation is carried out using----- species.
A	Saccharomyces
B	Bacillus
C	Escherichia
D	Aspergillus
Answer	A

Q.No.	38
Question	If pathogenicity/ virulence of toxin is removed by heat or chemicals it is called -----
A	endotoxin
B	antitoxin
C	exotoxin
D	toxoid
Answer	D

Q.No.	39
Question	Souring of milk is the principle involved in the formation of -----
A	Cheese
B	Cream
C	Curd
D	Butter
Answer	A



Q.No.	40
Question	Erythroblastosis fetalis can be prevented if the mother is injected, at parturition(act of giving birth), with an antibody called -----
A	Blocking antibody
B	Anti Rh antibodies
C	Antilymphocyte globulin
D	Antithymocyte serum
Answer	B

Q.No.	41
Question	Universal acceptor is person with blood group -----
A	“O” negative
B	“A” negative
C	“B” positive
D	“AB” positive
Answer	D

Q.No.	42
Question	Monoclonal antibodies are used for the treatment of ----- disease.
A	Blood cancer
B	Fungal diseases
C	Hepatitis A
D	Viral diseases
Answer	A

Q.No.	43
Question	Tetracycline and Streptomycin are _____ spectrum antibiotics.
A	Narrow
B	Broad
C	Wide
D	Sometimes narrow
Answer	B

Q.No.	44
Question	During humoral immune response B cells differentiate into ----- cells.
A	plasma
B	dendritic
C	cytotoxic
D	mast
Answer	A

Q.No.	45
Question	Microorganisms present in milk can be estimated by -----
A	MPN
B	SPC and DMC
C	Phosphatase
D	MBRT
Answer	B

Q.No.	46
Question	----- technique is used for primary screening of antibiotic producers.
A	Giant colony
B	Crowded plate
C	Indicator plate
D	Streak plate
Answer	B

Q.No.	47
Question	Oligodynamic effect is shown by -----
A	Heat
B	Heavy metals
C	Acids
D	Antibiotics
Answer	B

Q.No.	48
Question	There are ----- codons which specify 20 amino acids.
A	64
B	61
C	16
D	20
Answer	B

Q.No.	49
Question	Canning means -----
A	Food spoilage method
B	Sterilization method of food
C	A preservative method of food
D	Food contamination method
Answer	D

Q.No.	50
Question	Irradiation of DNA to UV radiation forms ----- dimers.
A	T=T
B	A=G
C	T=A
D	G=C
Answer	A

Q.No.	51
Question	The antibiotic resistance in the bacteria is conferred by ----- plasmids.
A	F
B	Col
C	R
D	Ti
Answer	C

Q.No.	52
Question	Histamine is -----
A	Primary mediator of anaphylaxis
B	Secondary mediator of anaphylaxis
C	atopen
D	allergen
Answer	A

Q.No.	53
Question	The best method for culture preservation is by removing water at low temperature is called -----
A	Freezing
B	Cold storage
C	lyophilization
D	Dried spore mass
Answer	C

Q.No.	54
Question	Granulocytic cell which release histamine after IgE production is -----
A	Platelets
B	lymphocytes
C	RBC
D	Mast cells
Answer	D

Q.No.	55
Question	The feeling of general discomfort is called -----
A	Arthritis
B	symptom
C	malaise
D	pain
Answer	C

Q.No.	56
Question	In microbial interaction -----, only one microorganism is actually benefitted and the other one is unaffected.
A	Neutralism
B	Commensalism
C	Synergism
D	antagonism
Answer	B

Q.No.	57
Question	Enzymes are chemically-----
A	lipids
B	carbohydrates
C	proteins
D	None of these
Answer	C

Q.No.	58
Question	Typhoid is a ----- born disease.
A	water
B	air
C	Animal
D	arthropod
Answer	A

Q.No.	59
Question	Pseudomonas is an example of -----
A	Gram positive bacteria
B	Gram negative bacteria
C	Actinomyces
D	virus
Answer	B

Q.No.	60
Question	The main product of glycolysis under aerobic condition is -----
A	Pyruvic acid
B	Lactic acid
C	None of these
D	Both a and b
Answer	A

Q.No.	61
Question	For the synthesis of amino acids Cysteine, cystine and Methionine the element required is -----
A	sulphur
B	oxygen
C	Nitrogen
D	None of these
Answer	A

Q.No.	62
Question	In an autoclave, the principle involved is-----.
A	dry heat
B	moist heat
C	steam under pressure
D	both b and c
Answer	D

Q.No.	63
Question	Organism produces swarming growth on culture media is-----.
A	Escherichia
B	Proteus
C	Klebsiella
D	Shigella
Answer	B

Q.No.	64
Question	Blood agar medium is----- medium
A	selective
B	enriched
C	differential
D	both b and c
Answer	D

Q.No.	65
Question	Presence of swelling, redness, pain, fever, necrosis and loss of function of organ is called-----
A	Inflammation
B	Infection
C	Immunity
D	Pathogenicity
Answer	A

Q.No.	66
Question	The first antibody to contact invading microorganism is
A	IgG
B	IgM
C	IgA
D	IgD
Answer	B

Q.No.	67
Question	-----is NOT a viral disease.
A	Hepatitis A
B	Rabies
C	Syphilis
D	HIV
Answer	C

Q.No.	68
Question	----- is acid fast bacterium.
A	Neisseria gonorrhoeae
B	Staphylococcus aureus
C	Mycobacterium tuberculosis
D	Klebsiella pneumoniae
Answer	C

Q.No.	69
Question	The main difference in bacteria and mycoplasma is that mycoplasma does not possess
A	flagella
B	cell wall
C	ATP synthesis
D	capsule
Answer	B

Q.No.	70
Question	----- bacterium is most commonly used in genetic engineering.
A	Serratia
B	Proteus
C	Klebsiella
D	Escherichia
Answer	D

Q.No.	71
Question	1 mm (millimetre) = ? nm (nanometer)
A	$10^3$ nm
B	$10^6$ nm
C	$10^2$ nm
D	$10^4$ nm
Answer	B

Q.No.	72
Question	BLAST is----- tool
A	sequence matching
B	analysis
C	evolutionary
D	none of these
Answer	B

Q.No.	73
Question	Cytokines-----
A	are lymphokines
B	are monokines
C	help to control &regulate immune response
D	all of these
Answer	D

Q.No.	74
Question	Autoantibodies against acetyl-choline receptors are produced in
A	Rheumatoid arthritis
B	Myasthenia gravis
C	Goodpasture's syndrome
D	Pernicious anaemia
Answer	B

Q.No.	75
Question	VDRL test is used for the diagnosis of-----
A	Typhoid fever
B	AIDS
C	Syphilis
D	Hepatitis
Answer	C

Q.No.	76
Question	Presence of Negri bodies in the brain is sign of -----
A	Rabies
B	Herpes
C	HIV
D	Hepatitis B
Answer	A

Q.No.	77
Question	Net gain of ATP yield per glucose molecule in aerobic respiration is ----- ----- molecules
A	2
B	12
C	8
D	38
Answer	D

Q.No.	78
Question	The resolving power of an optical microscope is -----
A	0.2 $\mu\text{m}$
B	0.2 $\text{\AA}^0$
C	0.2 nm
D	0.2 mm
Answer	A

Q.No.	79
Question	The reduction of virulence of a microorganism is known as-----
A	Attenuation
B	Exaltation
C	Inactivation
D	Tyndalization
Answer	A



Q.No.	80
Question	----- enzyme plays important role in sealing of Okazaki fragments of lagging stand.
A	helicase
B	topoisomerase
C	DNA-ligase
D	DNA polymerase
Answer	C

Q.No.	81
Question	Organisms utilizing sunlight as a source of energy and CO <sub>2</sub> as a source of carbon are called
A	photoautotrophs
B	Photoheterotrophs
C	Chemoautotrophs
D	Chemoheterotrophs
Answer	A

Q.No.	82
Question	In animal, the complement is present in maximum amount in ----- -
A	Mice
B	Monkey
C	Guinea pig
D	Horse
Answer	C

Q.No.	83
Question	----- bacterium is a motile due to presence of flagella on its surface.
A	Salmonella
B	Klebsiella
C	Shigella
D	Staphylococcus
Answer	A

Q.No.	84
Question	Teichoic acids and Teichuronic acids are found in-----
A	gram positive bacteria
B	gram negative bacteria
C	fungi
D	rickettsia
Answer	A

Q.No.	85
Question	A / A n - - - - - is the rapid spread of infectious <i>disease</i> to a large number of people in a given population within a short period of time.
A	sporadic
B	pandemic
C	epidemic
D	endemic
Answer	C

Q.No.	86
Question	-----occurs when a person's immune system reacts to substances in the environment those are harmless for most people.
A	immunological tolerance
B	autoimmunity
C	homograft rejection
D	allergy
Answer	D

Q.No.	87
Question	T- Helper cells carry ----- molecules as its specific marker.
A	CD4
B	CD8
C	CD9
D	CD3
Answer	A

Q.No.	88
Question	Clonal selection hypothesis (theory) of antibody production was put forth by -----
A	Kohler & Milstein
B	Burnet
C	Fenner
D	Landsteiner
Answer	A

Q.No.	89
Question	Humoral Immunity is mediated by-----
A	B cells
B	macrophages
C	dendritic cells
D	cytotoxic T cells
Answer	A

Q.No.	90
Question	Split genes consists of -----
A	exon
B	intron
C	both a) and b)
D	broken DNA
Answer	C

Q.No.	91
Question	Bombay phenotype (Oh) can be detected by using-----
A	Anti A
B	Anti B
C	Anti D
D	Anti H
Answer	D

Q.No.	92
Question	Antibodies which are big and are produced in primary immune response are - ----- class.
A	IgG
B	IgE
C	IgM
D	IgD
Answer	C

Q.No.	93
Question	DNA transfer from one bacterium to another through phages is termed as ---- -----
A	Induction
B	transformation
C	transduction
D	conjugation
Answer	C

Q.No.	94
Question	HLA complex of man is located on short arm of chromosome number----- -----
A	6
B	2
C	22
D	20
Answer	A

Q.No.	95
Question	----- are best antigen due to chemical complexity.
A	Carbohydrate
B	Lipids
C	Nucleic acids
D	Proteins
Answer	D

Q.No.	96
Question	Which of the following is used as fusion enhancing agent while getting hybridoma cells?
A	Polyethyleneglycol (PEG)
B	Polyphenol alcohol
C	Surfactants
D	Hydrocarbons
Answer	A

Q.No.	97
Question	----- test is used for diagnosis of typhoid fever.
A	Widal
B	VDRL
C	ELISA
D	Western blot
Answer	B

Q.No.	98
Question	Mast cells after degranulation release-----
A	antibodies
B	histamine
C	cytokines
D	class I molecules
Answer	B

Q.No.	99
Question	----- is antibody producing cell.
A	Eosinophil
B	Monocytes
C	lymphocyte
D	NK cells
Answer	C

Q.No.	100
Question	Which of the following test is well-known test for diagnosis of Syphilis?
A	Widal test
B	MHA test
C	FTA test
D	VDRL test
Answer	D