

SCHOOL OF STUDIES IN LIFE SCIENCE
Pt. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR-492010
M.Sc. Microbiology Entrance Examination: 2022-2023
(Question Paper: Microbiology)

Q.1.	The purpose of Sterilization technique is:			
	A.	Bacteria free Atmosphere	B.	Fungus free Atmosphere
	C.	Virus free Atmosphere	D.	All of the Above

Q.2.	Suitable temperature for pasteurization is:			
	A.	62.8 °C	B.	35.7 °C
	C.	62.2 °C	D.	60.8 °C

Q.3.	Disease that can be transmitted by an infectious agent from one individual to another is called:			
	A.	Epidemic	B.	Pandemic
	C.	Communicable	D.	All of the above

Q.4.	Nitrites are oxidized to nitrates by a microorganism:			
	A.	Nitrosomonas	B.	Nitrosococcus
	C.	Nitrobacter	D.	Azatobacter

Q.5	Biological Oxygen Demand (BOD) is a measure of:			
	A.	Amount of carbon monoxide inseparably combined with hemoglobin	B.	Amount of oxygen needed by green plants during night
	C.	Extent to which water is polluted with organic compounds	D.	Industrial wastes poured into water bodies

Q.6.	"Antagonism " is seen in:			
	A.	Lag phase	B.	Plasmids
	C.	Log phase	D.	None of the above

Q.7.	Bacteria are more sensitive to antibiotics at which phase of growth curve?			
	A.	Lag phase	B.	Decline phase
	C.	Log phase	D.	None of the above

Q.8.	The gene transfer occurs by			
	A.	Transformation	B.	Transduction
	C.	Conjugation	D.	Cell fusion

Q.9.	Nucleic acids are highly charged polymers due to:			
	A.	There is phosphodiester bond between 5'-hydroxyl of one ribose and 3'-hydroxyl of next ribose	B.	They have positive and negative ends
	C.	Nucleotides are charged structures	D.	Nitrogenous bases are highly ionized compounds

Q.10.	Which type of antibodies will associate in blood cell coagulation?			
	A.	IgE	B.	IgA
	C.	IgM	D.	IgG

Q.11.	The rejection of an organ transplant such as a kidney transplant, is an example of _____ Hypersensitivity.			
	A.	Immediate	B.	Delayed
	C.	Allergy	D.	None of the above
Q.12.	Main causative organism of gas gangrene is:			
	A.	<i>B. anthrax</i>	B.	<i>Clostridium tetani</i>
	C.	<i>Cl. difficile</i>	D.	<i>Cl. perfringens</i>
Q.13.	The best medium for the production of Penicillin is:			
	A.	Nutrient agar	B.	PDA
	C.	Sulfite waste liquor	D.	Corn steep liquor
Q.14.	In alcoholic fermentation, CO ₂ is evolved during:			
	A.	Decarboxylation of pyruvic acid	B.	Formation of acetaldehyde
	C.	Oxidation of acetaldehyde	D.	Both A and B
Q.15.	Which is the correct statement related to hepatitis B virus?			
	A.	Paramyxovirus	B.	Orthomyxovirus
	C.	Reoviruses	D.	Retroviruses
Q.16.	When a particular antigen is mixed with antibody in the presence of an electrolyte at suitable temperature and pH the particles are clumped, this is called:			
	A.	Precipitation	B.	Agglutination
	C.	Electrophoresis	D.	CIE
Q.17.	Natural killer cells:			
	A.	Belongs to B-cell lineage	B.	Belongs to T-cell lineage
	C.	Display cytotoxic effect on tumour cell	D.	Require previous antigen exposure for activation
Q.18.	Genetic information transfer DNA to RNA is called:			
	A.	Transcription	B.	Transduction
	C.	Transformation	D.	Recombination
Q.19.	The suitable temperature to transport virus culture is:			
	A.	30°C	B.	5°C
	C.	40°C	D.	45°C
Q.20.	Which one of the following mineral elements play an important role in biological nitrogen fixation?			
	A.	Copper	B.	Magnesium
	C.	Zinc	D.	Molybdenum
Q.21.	Agar-Agar is obtained from:			
	A.	Brown algae	B.	Red algae
	C.	Green algae	D.	Blue-green algae
Q.22.	Bacterium <i>Vibrio Cholerae</i> was discovered by:			
	A.	Robert Koch	B.	Metchnikoff
	C.	John Snow	D.	Virchow

Q.23.	The differences between Gram positive and Gram negative bacteria is shown to reside in the:			
	A.	Cell wall	B.	Nucleus
	C.	Cell membrane	D.	Mesosomes
Q.24.	The best protection from infectious virus can be obtained by using:			
	A.	Face Shield	B.	Sanitization
	C.	Mask and Safety Goggles	D.	Both A and B
Q.25.	All of the following are energy source of bacteria except:			
	A.	Oxidation of inorganic compounds	B.	Oxidation of organic compounds
	C.	Absorption of heat	D.	Utilisation of visible light
Q.26.	Neil mooseri reaction is related to:			
	A.	Rickettsia	B.	Chlamydiae
	C.	Spirochaetes periringens	D.	Clostridium
Q.27.	Genomic DNA is extracted, broken into fragments of reasonable size by a restriction endonuclease and then inserted into a cloning vector to generate chimeric vectors. The cloned fragments are called:			
	A.	Clones	B.	Genomic library
	C.	mRNA	D.	None of the above
Q.28.	Listeriosis is a _____ disease.			
	A.	Food borne	B.	Water borne
	C.	Milk borne	D.	Air borne
Q.29.	Botulism is related to:			
	A.	Food adultration	B.	Food poisoning by streptococcus bacteria
	C.	Contamination of food	D.	Food processing
Q.30.	Vaccines are prepared from killed microbes, they are:			
	A.	Inactivated (killed) vaccine	B.	Attenuated vaccines
	C.	Autogenous vaccine	D.	None of these
Q.31.	Corona virus is mainly transmitted through:			
	A.	Air	B.	Water
	C.	Soil	D.	None of the above
Q.32.	Who is called the father of Microbiology:			
	A.	Watson and Crick	B.	Alexander Fleming
	C.	Leeuwenhoek	D.	Louis Pasteur
Q.33.	Polymerase Chain Reaction (PCR) is invented by:			
	A.	K. Mullis	B.	Robert Koch
	C.	D. Baltimore	D.	Both A and C
Q.34.	In EcoRI "R" is related to:			
	A.	Regular	B.	RY13
	C.	Resistance	D.	Reverse
Q.35.	Electron microscope gives magnification up to:			
	A.	100 X	B.	2000 X
	C.	50000 X	D.	200000 X

Q.36.	Compound Microscope was discovered by:			
	A.	A.V. Lewenhoek	B.	Pasteur
	C.	Janssen and Hans	D.	None of the Above
Q.37.	Vectors contains Cos-Site is called:			
	A.	PBR32	B.	M13
	C.	Cosmid	D.	YAC
Q.38.	A toxin produced in the intestines is called:			
	A.	Exotoxin	B.	Endotoxin
	C.	Enterotoxin	D.	Both A and C
Q.39.	For DNA sequencing following is required:			
	A.	Primer	B.	DNA Sequencer
	C.	dNTP	D.	All of the Above
Q.40.	Which Blotting Techniques is NOT known:			
	A.	Southern	B.	Western
	C.	Northern	D.	Eastern
Q.41.	IPR is basically a:			
	A.	Intelligent Property Right	B.	Important Planning for Research
	C.	Intelligent Planning in Research	D.	Intellectual Property Right
Q.42.	Important Features of "Biosensors" is:			
	A.	High sensitivity	B.	Low detection limit
	C.	Good reproducibility	D.	All of the Above
Q.43.	Nostoc and Anabaena is best example of:			
	A.	Bio pesticides	B.	Biopharming
	C.	Bio fertilizers	D.	Bio minerals
Q.44.	Which one is produced by Recombinant DNA technology:			
	A.	Insulin	B.	TSH
	C.	HGH	D.	None of the Above
Q.45.	Most sensitive laboratory test to detect "Corona Virus" is:			
	A.	ELISA	B.	Antigen Test
	C.	Biochemical test	D.	RT-PCR Test
Q.46.	Enzyme hydrolyzing bacterial cell wall:			
	A.	Lysosome	B.	Reductase
	C.	Protease	D.	EcoRI
Q.47.	Viruses genome mostly contains:			
	A.	DNA	B.	RNA
	C.	Both A and B	D.	None of the Above

Q.48.	Nucleotide bases are:			
	A.	ATGC	B.	AUCT
	C.	ATGK	D.	None of these

Q.49.	Required nucleotides bases for PCR experiments is:			
	A.	dATP, dCTP, dGTP	B.	dATP, dGTP, dTTP
	C.	dATP, dCTP, dGTP, dTTP	D.	dCTP, dGTP, dTTP

Q.50.	Nano-Biology is basically a:			
	A.	Study of nanomaterial's	B.	Study of large fungus
	C.	Study of viruses	D.	Both A and C