Total No. of printed pages = 4

BP 303 T

BINA CHOWDHURY CENTRAL LIBRARY (GIMT & GIPS) Azara, Halkhowapara Guwahati — 781017

Roll No. of candidate					
			1		

2023

## B.Pharm. 3rd Semester (Regular) End-Term Examination

## PHARMACEUTICAL MICROBIOLOGY

(New Regulation (w.e.f. 2017-2018))

Full Marks - 75

Time - Three hours

Full Marks – 75			10		Time – Three nours		
		,					
		Tł	ne figures in the margin inc	licate ful	marks for the questions.		
1.	Ans	wer	all the questions:		$(20 \times 1 = 20)$		
	(i)	The	e term mutation was coined	by ——			
		(a)	Pasteur	(b)	Darwin		
		(c)	Hugo devries	(d)	Lamark		
	(ii)	The	e resolution power of the co.	mpound 1	microscope is ————.		
		(a)	0.2 micron	(b)	0.2 millimeter		
		(c)	0.2 Angstrom units	(d)	0.2 centimeter		
	(iii)	The	e colonies produced by P	'seudomo	nas on Mac Conkey's medium are		
		(a)	Purple colored	(b)	Pink colored		
		(c)	Pale colored	(d)	Green colored		
	(iv)	Tei	choic acid is absent in ——				
		(a)	Gram positive bacteria				
		(b)	Gram negative bacteria				
		(c)	Acid fast bacteria				
		(d)	Both gram positive and g	ram nega	ative		

(v)	F-va	lue is expressed as ———		·		
	(a)	a) Rate of death of microorganism				
	(b) Rate of survival of microorganisms					
	(c)	Rate of motility of microorgan	nisms			
	(d)	None of these				
(vi)	In V	Virion structure, regulatory	prote	ein is present which is known as		
	(a)	Cell membrane	(b)	Tegument		
	(c)	Antigen	(d)	Coat		
(vii)	Spik	re projections on the outer sur	face o	f virus is ———.		
	(a)	Capsomeres	(b)	Peplomeres		
	(c)	Proteomeres	(d)	Viroid		
(viii)	Test	micro-organism used for	mic	erobiological assay of tetracycline		
	(a)	Staphylococcus epidermidis	(b)	Staphylococcus aureus		
	(c)	Bacillus pumilus	(d)	Bacillus subtilis		
(ix)	The	micro-organism used of r	nicrol	piological assay of vitamin B <sub>12</sub> i		
	(a)	Lactobacillus Leichamannii	(b)	Poteriochromonas Stipitata		
	(c)	Lactobacillus Virdescens	(d)	Lactobacillus Plantarum		
(x)	Lipi	d contents is more in				
	(a)	Gram negative bacteria	(b)	Gram positive bacteria		
	(c)	Same in both	(d)	None of these		
(xi)	The order of stains in Gram-staining procedure is ————.					
	(a) Crystal violet, Iodine solution, Alcohol, Saffranine					
	(b) Iodine solution, Crystal Violet, Saffranine, Alcohol					
	(c) Alcohol, Crystal Violet, Iodine solution, Saffranine					
	(d)	All of these				
(xii)	My	cobacteria are stained with —				
	(a)	Gram's staining	(b)	Simple staining		
	(c)	Both (a) and (b)	(d)	Ziehl - Neelsen's staining		

(xiii)	Whi			zation has no effect on spores?	
	(a)	Drying BINA CHOWDHURY CE (GIMT & GI			
	(c)	Autoclave Azara, Haikho Guwahati = 7	(d)	None of these	
(xiv)	Bact	cerial ribosomes are composed	of—		
	(a)	Protein and DNA	(b)	Protein and mRNA	
	(c)	Protein and rRNA	(d)	Protein and tRNA	
(xv)	The	viruses that live as parasites	on ba	cteria are ———.	
	(a)	Fungi	(b)	Commensels	
	(c)	Bacteriophages	(d)	None of these	
(xvi)	The	bacterium that is most co	mmo	nly used in genetic engineering	is
	(a)	Escherichia	(b)	Klebsiella	
	(c)	Proteins	(d)	Serratia	
(xvii	) Isol	lation is ———.			
	(a)	Purification of culture			
	(b)	Introduction of inoculum			
	(c)	Separation of a single colony			
	(d)	To grow microsorganisms on	surfa	ices	
(xvii	ii) Ph	enol co-efficient indicates —			
	(a)	Efficiency of a disinfectant	(b)	Dilution of a disinfectant	
	(c)	Purity of a disinfectant	(d)	Quantity of a disinfectant	
(xix)	) Bes	t method for getting pure cult	ure is		
	(a)	Streak-plate	(b)	Agar slant	
	(c)	Both (a) and (b)	(d)	None of these	
(xx)		ctron microscope studies do terial spore ————.	not	help in identifying the section	0
	(a)	Core	(b)	Spore cortex	
	(c)	Capsule	(d)	All of these	

2. Answer any Seven:

 $(7 \times 5 = 35)$ 

- (a) Briefly describe the morphological classification of bacteria. Mention the difference between prokaryotes and eukaryotes.
- (b) Write a short note on nutritional requirement for bacterial culture medium. Explain the physical factors affecting bacterial growth.
- (c) Explain the isolation methods adopted for obtaining pure culture.
- (d) Explain Ziehl-Neelsen staining. Differentiate between gram positive and gram negative bacteria.
- (e) Explain briefly the physical methods of sterilization. Describe the factors affecting the D value.
- (f) Write a short note on classification of virus. Explain lysogenic cycle.
- (g) Differentiate between antiseptic and disinfectant. Explain the factors affecting antimicrobial activity.
- (h) Explain the factors affecting the microbial spoilage of Pharmaceutical products. Describe sources and types of microbial contaminants.
- (i) Describe briefly the application of cell cultures in pharmaceutical industry and research.

3. Answer any Two:

 $(2 \times 10 = 20)$ 

(a) Write short notes on:

 $(4 \times 2.5 = 10)$ 

- (i) Chick Martin Test
- (ii) Rideal Walker Test
- (iii) Crown Test
- (iv) FDA Phenol coefficient test.
- (b) Briefly explain the design of aseptic area. Explain Cylinder Plate Method.
- (c) Explain turbidity assay method. Explain standardization of vitamin B<sub>12</sub>.