

PARUL UNIVERSITY
PARUL INSTITUTE OF APPLIED SCIENCES
MID SEMESTER INTERNAL EXAMINATION, APRIL 2018
M.Sc. Semester II

Paper Name: Microbial Biochemistry

Date: 04/03/2020

Paper Code: 11203157

Time: 1hr 30min

Max. Marks: 40

Instructions:

1. All questions are compulsory and options are given in first and second question only.
2. Numbers to the right of question indicate the marks of respective question.

- Q. 1** Attempt any one question of the following. **(08)**
 (i) Briefly describe structure of prokaryotic cell .
 (ii) Describe the growth phases of bacterial cell .
- Q. 2** Attempt any three questions of the following. **(12)**
 (i) Explain structure of Flagella with types.
 (ii) Write a note on food borne infections.
 (iii) Describe the mode of action of beta lactum antibiotics.
 (iv) Write short note on :Folic acid inhibitors.
 (v) Describe the action of any two chemical sterilant .
- Q. 3** Do as directed. Attempt all five questions. **(05)**
 (i) Define phototrophy?
 (ii) What is diauxic growth?
 (iii) Types of plasmid.
 (iv) Write short note on archaebacteria.
 (v) Comment on symbiotic mode of nutrition.
- Q. 4** Write correct option in your answer sheet for following 15 multiple **(15)**
 choice questions.

MCQ 1	The association of endotoxin in Gram-negative bacteria is a result of the presence of:			
	(A)	peptidoglycan	(B)	LPS
	(C)	Porin	(D)	Mycolic acid
MCQ 2	Which of the following bacteria lack a cell wall and are therefore resistant to penicillin?			
	(A)	Cyanobacteria	(B)	Mycoplasma
	(C)	E.coli	(D)	Cyanobacteria
MCQ 3	A cluster of polar flagella is called			
	(A)	Amphitrichous	(B)	Lophotrichous
	(C)	Peritrichous	(D)	Monotrichous
MCQ 4	Generation time of E.coli is			
	(A)	2 days	(B)	1 hr
	(C)	20 minutes	(D)	30 minutes
MCQ 5	The organism which grows best above 45°C are called			
	(A)	Psychrophilic	(B)	Mesophilic
	(C)	Thermophilic	(D)	Acidophilic

MCQ 6	Some organisms can use reduced inorganic compounds as electron donors and are termed as			
	(A)	Lithotrophs	(B)	phototrophs
	(C)	Chemotrophs	(D)	photo-organotrophs
MCQ 7	Identify the term that describes a disinfectant that can kill bacteria:			
	(A)	Bactericidal	(B)	Bacteriostatic
	(C)	Pathogenic	(D)	Asepsis
MCQ 8	The drug which causes misreading of mRNA code and affects protein synthesis is			
	(A)	Penicillin	(B)	Streptomycin
	(C)	Cephalosporin	(D)	None of these
MCQ 9	All are beta lactum antibiotics except			
	(A)	Penicillin	(B)	Cephalosporin
	(C)	Monobactam	(D)	Tetracycline
MCQ 10	In which phase would you expect to observe the most endospores in a <i>Bacillus</i> cell culture?			
	(A)	Lag phase	(B)	Log phase
	(C)	Stationary Phase	(D)	Death phase
MCQ 11	If a culture starts with 50 cells, how many cells will be present after five generations with no cell death?			
	(A)	200	(B)	400
	(C)	1600	(D)	3200
MCQ 12	Bacteria living in salt marshes are most likely which of the following?			
	(A)	Acidophiles	(B)	Thermophiles
	(C)	Halophiles	(D)	Neutrophiles
MCQ 13	Ethanol used in --- as doctors alcohol.			
	(A)	100%	(B)	50%
	(C)	70%	(D)	90%
MCQ 14	Autoclave is used for ---			
	(A)	Disinfection	(B)	Filtration
	(C)	Sterilization	(D)	None
MCQ 15	MacConkeys agar is example of			
	(A)	Selective media	(B)	Differential media
	(C)	A & B both	(D)	None of the above

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