## PARUL UNIVERSITY

Enrolment No:\_\_\_\_\_

**COLLEGE OF AGRICULTURE B.Sc.(Hons.)Agriculture Winter 2019 - 20 Examination** 

Semester: 2       Date: 12/12/2019         Subject Code: 20110152       Time: 2.00 pm to 4.30 pm         Subject Name: Agricultural Microbiology       Total Marks: 50         Instructions       .         1. All questions are compulsory.       .         2. Figures to the right indicate full marks.       .         3. Make suitable assumptions wherever necessary.       .         4. Start new question on new page.
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d) Hole of above
6. Anarobic process means
a) Absence of Air c) Absence of Carbon dioxide
b) Present of Air d) Absence of Oxygen
7. Bacteria having cell structure.
a) Eukaryotic c) Multi cellular
b) Prokaryotic d) None of above
8. System improves soil fertility
a) Cereal+Cereal c) Cereal+Horticulture crops
b) Millets+Fodder d) Cereal+Pulses
9. Equipment used for transfer of one bacterial colony to another media
a) Hand glove c) Wire-loop
b) Spreader d) Hot-Air-Oven
10. Equipment use for maintain aseptic temperature for proper growth of microorganism.
a) Autoclave c) Incubator
b) Laminar air Flow d) Water bath
11. Azolla doubles its biomass indays.
a) 7-9 c) 10-12
b) 3-5 d) 13-15

	12. Azolla is used in crop.			
	a) Wheat	c) Rice		
	b) Pearl millet	d) Sorghum		
	13. Nutrient agar contains			
	a)Beef extract	c)Peptone		
	b) Agar	d) All of the above		
	14. Bio-fertilizers can replaces% che	mical fertilizer.		
	a) 25-30	c) 10-15		
	b) 35-40	d) 40-45		
	15. Filtration is method of sterilization.			
	a) Physical	c) a & b Both		
	b) Chemical	d) None		
	16.Hot air ovens is used as heat steriliza	tion.		
	a) Dry	c) a & b both		
	b) Moist	d) None		
	17. In autoclave require°C temperature	e for 20 minutes.		
	a) 121	c) 141		
	b) 131	d) 151		
	18. The principle of moist sterilization is to produce	e steam which raises the	_ in the inner	
	chamber.			
	a) Temperature	c) a & b both		
	b) Pressure	d) None		
	19. Azospirillumis use in crop.			
	a) Wheat	c) Sorghum		
	b) Green gram	d) a & c both		
	20. Azolla can supplement about% of		р.	
	a) 30 b) 20	c) 70		
0.1	b) 20	d) 50		
-	Do as Directed.			(05)
A	<b>Define the following. (Any five)</b> 1. Microbiology			(05)
	2. Rhizobium			
	3.Bio-Pesticide			
	4. Bio-Fertilizers			
	5. Silage			
	6. Sterilization			
	7. Bio-waste degradation			
В	Answer the following. (Any Five)			(05)
	1. Give the name of bio-fungicide.			( <b>00</b> )
	2. What do you mean by Biological control?			
	3. Fungi grows on which specific media?			
	4. Bacteria grow on which specific media?			
	5. Standard temperature and pressure for autoclay	/e.		
	<ol> <li>Function of cytoplasm.</li> </ol>			
	7. Function of Ribosome.			
0.3	Write short notes. (Anyfive)			(10)
C	1. Importance of microbiology in agriculture.			
	2. Mass multiplication of azolla.			
	3. Bio-Pesticide.			
	4. Advantages of silage making.			
	5. Draw labelled diagram of Eu-Karyotic cell and	write function of it.		
	6. Difference between Prokaryotes vs Eukary			
Q.4	Attempt any Three/Long Questions/Example			(15)
-	1. Draw labelled diagram of Pro-karyotic cell and	l write function of it.		
	2. Give steps of gram's staining procedure.			
	3. Characteristics of azolla.			
	4. Bio-Fertilizers			