

**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086**  
(For candidates admitted during the academic year 2023 – 2024)

**M. Sc. DEGREE EXAMINATION - NOVEMBER 2023**  
**BIOTECHNOLOGY**  
**FIRST SEMESTER**

**COURSE : CORE**  
**PAPER : MICROBIOLOGY**  
**SUBJECT CODE : 23BY/PC/MI14**  
**TIME : 3 HOURS** **MAX. MARKS: 100**

Q. No.	SECTION A	CO	KL
	<b>Answer ALL Questions (10 x 1 = 10 marks)</b>		
1	List two discoveries of Louis Pasteur.	1	1
2	Define dendrogram.	1	1
3	Name the maximum magnification obtained in bright field microscope.	1	1
4	Recall the importance of flagella in bacteria.	1	1
5	List the functions of fungal mycelium.	1	1
6	Define enriched medium.	1	1
7	Name the radiation method used to control microbial contaminations in food industry.	1	1
8	Define zoonosis.	1	1
9	List out the symptoms of typhoid disease.	1	1
10	Name any two sexually transmitted disease.	1	1
Q. No.	SECTION – B	CO	KL
	<b>Answer ALL Questions (5 x 2 = 10 marks)</b>		
11	Summarize the major events occurred during the golden era microbiology.	1	2
12	Discuss the applications of phase contrast microscope.	1	2
13	Summarize the techniques used to preserve the bacteria.	1	2
14	Explain the different mode of diseases transmission.	1	2
15	Discuss the prevention methods for HIV disease.	1	2
Q. No.	SECTION C	CO	KL
	<b>Answer ALL Questions (4 x 10 = 40 marks)</b>		
16a	Plot and explain bacterial growth curve.	2	3
16b	(or) Present and account on moist heat sterilization.		
17a	Compile the classification of Algae.	2	3
17b	(or) Relate the various process involved in multiplication of virus in host cell.		

18a	Investigate the laboratory diagnosis of Tuberculosis.	3	4
18b	(or) Outline the zoonotic bacterial infection.		
19a	Investigate the mutualistic relationship between microorganisms and plants.	3	4
19b	(or) Outline the characteristic feature of halophilic bacteria.		
<b>Q. No.</b>	<b>SECTION – D</b> <b>Answer ALL Questions (2 x 20 = 40 marks)</b>	<b>CO</b>	<b>KL</b>
20a	Recommend the principle and application of scanning electron microscope.	4	5
20b	(or) Evaluate the types of disinfectants used to control the microorganisms.		
21a	Propose the mass production of rhizobium biofertilizer.	5	6
21b	(or) Generate the role of microorganisms in the antibiotic production process.		

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