Q. Code: 948383

Reg. No. | | | | | | | | | |

B.E. / B.TECH. DEGREE EXAMINATIONS, DEC 2019

Third Semester

BT18305 – MICROBIOLOGY

(Biotechnology)

(Regulation 2018)

Time: Three Hours **Maximum : 100 Marks**

Answer **ALL** questions

PART A - (10 X 2 = 20 Marks)

		CO	RBT
1.	Write down the contributions of Pasteur in the field of microbiology.	**1**	**U**
2.	State the principle behind phase contrast microscopy.	**1**	**AP**
3.	Mention the special feature of mycoplasma.	**1**	**R**
4.	Write about the different modes of multiplication found in yeast.	**1**	**R**
5.	Criticize the role of agar in media preparation.	**2**	**U**
6.	List down the four important phases in growth curve.	**2**	**R**
7.	What is meant by antibiotic resistance?	**2**	**AP**
8.	Write about few clinically important microorganisms.	**2**	**AN**
9.	Define bioleaching.	**3**	**U**
10.	Mention the applications of biosensors.	**3**	**AP**

PART B - (5 X16 = 80 Marks)

11.	(a)	What is staining? Explain the different staining techniques along with its principles.	**(16)**	**1**	**AP**
		(OR)			
	(b)	Discuss in detail about the principle, working and application of light and electron microscopy.	**(16)**	**1**	**AP**
12.	(a)	Elaborate the morphology and reproduction of algae.	**(16)**	**1**	**U**
		(OR)			

	(b)	Describe about the classification of fungus based on its morphology and reproduction.	**(16)**	**1**	**U**
13.	(a)	Explain bacterial growth curve and discuss the different methods to quantify bacterial growth.	**(16)**	**2**	**AP**
		(OR)			
	(b)	Elaborately compare and contrast about aerobic and anaerobic bioenergetics of microorganisms.	**(16)**	**2**	**AP**
14.	(a)	Describe the physical and chemical method used for the control of microorganism by explaining the mode of action.	**(16)**	**2**	**R**
		(OR)			
	(b)	Explain the mechanism of action of antibacterial, antifungal and antiviral agents by citing a suitable example.	**(16)**	**2**	**R**
15.	(a)	Explain in detail about the role of microorganisms in pollution control and biosensors.	**(16)**	**3**	**AN**
		(OR)			
	(b)	Differentiate between primary and secondary metabolites. Elaborate the production of one metabolite each.	**(16)**	**3**	**AN**