

B.N. BANDODKAR COLLEGE OF SCIENCE, THANE

F.Y.B.SC - FIRST SEMESTER END EXAMINATION OCTOBER 2011

USBT101

DURATION 2 HRS

MAX MARKS-60

N.B.			Marks
	1) 2)	All Questions are compulsory. Figures to right indicate full marks.	
Q.1)	A 1. 2. 3.	Answer the following. 1. Inspissation 2. chemoheterotrophs 3. Pasteurization	3
Q.1)	B 1. 2. 3. 4. 5.	Answer any 3 of the following. 1. Explain the principle, construction and significance of 'autoclave' in a biotechnology laboratory. 2. What is cold sterilization? Explain in detail. 3. What are HEPA filters? Explain the instrument that has HEPA filters. 4. Discuss pour plate technique and its significance 5. Write a note on nutritional requirements of micro-organisms	12
Q2)	A 1. 2. 3.	Explain the following terms. 1. Genome 2. Homozygote 3. Parental ditypes	3
	B 1. 2. 3. 4. 5.	Answer any 3 of the following. 1. Segregation and assortment in haploid organisms 2. Testing of phenotypes 3. Spontaneous mutations 4. Point mutations based on amino acid sequence 5. Genotypes of Dihybrid crosses	12
Q 3)	A 1. 2. 3.	Answer the following. 1. What separates the nucleus from its external environment? 2. Mention any one role played by plasma membrane. 3. Give two functions of nucleus.	3
	B 1. 2. 3. 4.	Answer any 3 of the following. 1. Explain the structure of plant cell in detail. 2. Write a note on organization of angiosperms. 3. Explain different types of plant tissues with examples. 4. Explain parthenocarpy.	12

P. T. O.

	5.	Describe in detail storage roots with any two examples.	
Q.4)	A	Answer the following. 1. How would you sterilize heat sensitive antibiotic solution? 2. Mention the law of segregation. 3. Give two examples of storage stems.	3
	B	Answer any 3 of the following. 1. Enlist properties of an ideal disinfectant. 2. Write a note on types of mutation on chromosome structure. 3. Write a note on techniques of preservation of bacteria 4. Write a note on non microscopic methods of enumeration of microorganisms. 5. Write a note on modifications of organs of commercial importance. *****	12