

**B.N. Bandodkar College of Science, Thane**

**F.Y.B.Sc - Second Semester End Examination March 2012(Additional)**

**USBT201**

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 4.	Answer any 3 of the following. 1. Give function of ocular lenses 2. Define mordant 3 Give examples of natural dye 4. Give examples of chemical fixative	3
Q.1)	B 1. 2. 3. 4. 5.	Answer any 3 of the following. 1. Explain different objective lenses in compound microscope,its advantages and explain Total Magnification 2. Explain the path of light through compound microscope 3. Define differential staining and explain an example in brief. 4. Explain different techniques of fixation . 5. Write short note on auxochromes	12
Q2)	A 1. 2. 3.	Define the following terms. 1. Penetrance 2. Prophage 3. Transconjugants	3
Q.2)	B 1. 2. 3. 4. 5.	Answer any 3 of the following. 1. Explain : Complementation test 2. Write a note on essential and lethal genes 3. Explain with an example Multiple alleles 4. Explain the Lederberg and Tatum experiment to prove conjugation 5. Explain the Lysogenic cycle of bacteriophage	12
Q 3)	A 1. 2. 3.	Answer the following. 1. Perichondrium 2. Myofibril 3. Neurotransmitters	3
Q.3)	B 1. 2. 3. 4. 5.	Answer any 3 of the following. 1. Why Drosophila should be used as a model organism in genetics 2. Give an account on Areolar tissue 3. Write a note on Nervous tissue 4. Explain : Bone skeletal tissue 5. Explain the criteria for selection of a model organisms	12

Q.4)	A	Answer the following. 1. Name any one stain for staining chromosomes 2. Define : lysogeny 3. Define : plasmid	3
Q.4)	B	Answer any 3 of the following. 1. Explain variables affecting staining reactions. 2. Give an account on Albino mice as a model organism in research 3. Describe Recessive Epistasis 4. Explain the phenomenon of codominance 5. Explain :Transformation	12