

B. N. BANDODKAR COLLEGE OF SCIENCE, THANE

FIRST SEMESTER-END EXAMINATION- OCTOBER - 2011

F.Y.B.Sc

USMB102

Duration: 2 hrs

Marks: 60

		Marks
N.B.	1) All Questions are compulsory. 2) Figures to right indicate full marks.	
Q.1)	A Define (Any two) 1 Resolving power 2 d 3 Simple microscope	2
Q.1)	B Give importance of: (Any one) 1 Ocular 2 Atomic force Microscope	1
Q1)	C Answer the following: (Any three) 1 Diagrammatically explain TEM. 2 Write note on magnification of light Microscope. 3 Explain the working of Scanning tunneling Microscope. 4 Discuss about lenses present in compound microscope	12
Q2)	A Define the following (Any two) 1 Mordant 2 Basic dye 3 Freeze etching	2
Q 2)	B Name the method for: (Any one) 1 Capsule staining 2 Flagella staining	1
Q2)	C Answer the following: (Any three) 1 Describe Dark field microscope 2 How does bacterial cell wall composition affect Gram staining? 3 Give principle and working of Phase contrast microscope 4 Diagrammatically explain Fluorescence Microscope	12

P.T.O.

- Q.3) A How would you sterilize the following? 3
- 1 Animal tissue culture media
 - 2 Nutrient agar
 - 3 Mineral oil
- Q.3) B Attempt of the following. (any three) 12
- 1 Explain the use of halogens to control microorganisms.
 - 2 Explain the use of radiations to control microorganisms.
 - 3 Define sterilization and pasteurization. Write in brief about pasteurization. Is pasteurized milk sterile? Justify.
 - 4 Explain the different conditions influencing effectiveness of antimicrobial agents.
 - 5 Explain the use of moist heat to achieve sterilization
- Q.4) A Answer the following. (Any three) 3
- 1 Define autoradiography
 - 2 Name the oil used for oil immersion lens
 - 3 Give example of acidic dye
 - 4 Name metals exhibiting Oligodynamic action.
 - 5 Give any one disadvantage and advantage of UV radiations in sterilization.
- Q.4) B Answer the following (Any three) 12
- 1 Give principle and working of SEM
 - 2 Explain path of light through compound microscope
 - 3 Discuss wet mount procedure and its advantages?
 - 4 Explain any four situations in laboratory where alcohol is used for disinfection
