

B. N. BANDODKAR COLLEGE OF SCIENCE, THANE
SECOND TERM-END EXAMINATION- MARCH - 2012

S.Y.B.Sc

BIOTECHNOLOGY : I

Duration 2 hrs		Max Marks-60
N.B.	1) All Questions are compulsory.	Marks
	2) Figures to right indicate full marks.	
Q.1)	A Answer the following	3
	1 Give examples of dsDNA virus	
	2 Define primary screening	
	3 Give significance of aerated lagoons	
Q.1)	B Answer the following: (any three)	12
	1 How would you cultivate animal viruses?	
	2 Justify there are numerous ways of classifying virus.	
	3 Differentiate between batch and continuous fermentation	
	4 Explain Nitrogen Cycle	
	5 How will you create a minienvironment with gradients for nurturing the growth of various soil microorganisms?	
Q2)	A Answer the following:	3
	1 Give any 2 significance of erythropoietin	
	2 Define lysogeny	
	3 Give example of plant viruses	
Q2)	B Attempt of the following: (any three)	12
	1 Give functions of insulin hormone.	
	2 Diagrammatically explain Influenza virus	
	3 Explain life cycle of lytic phage	
	4 Give medical uses of microbial enzyme	
	5 What are the effects of overproduction and deficiency of Somatotropin.	
Q 3)	A Answer the following	3
	1 Give an example of symbiotic nitrogen fixing bacteria	
	2 Define : BOD	
	3 Give the significance of Anaerobic digestion	
Q3)	B Answer the following: (any three)	12
	1 Write a note on Sulfur cycle	
	2 Write a note on rhizosphere	
	3 Give an account on physical properties of soil	
	4 Write a note on various treatments done on waste water before its disposal in a water body.	
	5 Explain Activated sludge process	PTO

Q4A Answer the following (any three)

12

- 1 Write a note on Methods and significance of preservation of culture isolate
2. Differentiate between feedback inhibition and feedback repression
3. How would you isolate analogue resistant mutants
4. With a suitable example discuss importance of auxotrophs in production of primary metabolites
5. Elaborate: surface and submerged fermentations with one example each

Q4B Give examples of:

3

1. solid substrate fermentation
2. Cryo-protective agents
3. types of enzyme inhibition of branched biochemical pathway