B. N. BANDODKAR COLLEGE OF SCIENCE, THANE

SECOND TERM-END EXAMINATION- MARCH - 2012

S.Y.B.Sc

BIOTECHNOLOGY : PAPER III

Duration 2 hrs **Max Marks-60**

N.B. 1) All Questions are compulsory.
2) Figures to right indicate full marks.

Marks

Q.1)	A	Answer the following	3
	1	Name the inhibitor of Complex-III of ETC.	
	2	Give the significance of using Ethidium bromide	
	3	Define : coenzyme	
Q.1)	B	Answer the following: (any three)	12
	1	Write a note on Chloroplast as a photosynthetic pigment.	
	2	Explain Scanning electron Microscopy	
	3	Give an account on factors affecting migration rate in electrophoresis.	
	4	Give structure and function of folic acid.	
	5	Write a note on Photophosphorylation	
Q2)	A	Answer the following:	3
	1	What is Gibb's free energy?	
	2	What is redox potential?	
	3	Draw the structure of ATP.	
Q2)	B	Attempt of the following: (any three)	12
	1	What is ~P? Give a note on high energy compound.	
	2	Discuss laws of thermodynamics	
	3	Explain the coenzyme activity of biotin	
	4	Give the structure and function of vitamin D	
	5	Justify ATP as energy currency of the cell.	
Q 3)	A	Answer the following: (any three)	3
	1	Diagrammatically explain Cyclic photophosphorylation.	
	2	Distinguish between oxidative and reductive phosphorylation.	
	3	Explain in detail the structure and function of FoF1ATPase molecule.	
	4	Describe Reductive TCA using structures and enzymes.	
	5	Write a note on accessory photosynthetic pigments.	
Q 3)	B	Give role of following	12
	1	Thylakoid	
	2	FoF1ATPase	
	3	PS-I	

P.T.O.

Q 4)	A	Answer the following (any three)	12
	1	Explain the working, principle and application of TEM	
	2	Give an account on fluorescence microscopy	
	3	Write a note on PAGE	
	4	Write a note on Confocal microscopy	
	5	Describe in detail the working and application of AGE	
Q.4)	B	Give the significance of	3
	1	Tank buffer in electrophoresis	
	2	Staining in electrophoresis	
	3	Laser in confocal microscopy	

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