

[Time: Two and a half Hours]

[Marks:60]

Please check whether you have got the right question paper.

- N.B:
1. All questions are compulsory
 2. Figures to the right indicate full marks
 3. Mixing of sub questions is not allowed
 4. Draw diagrams wherever necessary

Q1		12 M
A	Explain the concept of free radicals and antioxidants.	6
B	Write a note on effect of processing on nutrients.	6
	OR	
C	Comment on Nutritive and non nutritive components in food with health benefits.	6
Q2		12M
A	Explain the role of sphingolipids in cancer.	6
B	Describe the role oats as functional foods.	6
	OR	
C	Write sources for the following: a)isoprenoids b)flavones c)carotenoids d)lycopene e)sphingolipids	6
Q3		12M
A	How foodomics is useful in food industries?	6
B	Discuss importance of nutrigenomics	6
	OR	
C	Explain the following terms: a)genetics b)epigenetics c) personalized nutrition d)proteomics	6
Q4		12M
A	Explain the role of enzymatic manipulations in tailor made molecules.	6
B	Give applications of bioreactors to nutraceuticals.	6
	OR	
C	Define and explain: (a)bioreactor (b)secondary metabolites (c)biodiesel (d)second generation fuels	6
Q5		12M
	Short notes: (Any 3)	
A	Interrelationship of foodomics with optimal nutrition	
B	Role of nuts in cardiovascular disease prevention	
C	Tocotrienols as antioxidants	
D	Emulsifiers	