

Total page: 1

PG CBCS**M.SC. Semester-III Examination, 2021****DEPARTMENT OF FOOD SCIENCE AND NUTRITION****PAPER: FSN 301****(FUNCTIONAL FOODS AND NUTRACEUTICALS, FOOD NANOTECHNOLOGY AND FOODOMICS)****Full Marks: 40****Time: 2 Hours****Answer any FOUR questions of the following: 4X10=40**

1. (i) What do you mean by carcinogens and teratogens? 2+4+4
 (ii) Write the role of flavonoids on cancer prevention.
 (iii) Write the role of P53 gene and Onco gene on the development of cancer.
2. (i) What do you mean by metabolomics? 2+6+2
 (ii) Briefly discuss the metabolomic approach of aflatoxin for toxicity induction.
 (iii) Define epigenetics.
3. (i) Define food nanotechnology. 2+6+2
 (ii) Write down the basic application of food nanotechnology in food industry.
 (iii) State the safety concerns to be taken in food nanotechnology.
4. (i) What do you mean by nutrigenomics?
 (ii) Explain the role of vitamin A for concerned gene expression from the view point of nutrigenomics approach. 2+8
5. Define prebiotics with example. Classify different types of prebiotics. State the health beneficial effects of prebiotics. 2+3+5
6. Define probiotics. What are the selection criteria of a probiotic bacterium? How do probiotic bacteria lower down cholesterol? 2+6+2
7. What do you mean by phytoestrogens? What are the different sources of flavonoids? Explain the role of phytoestrogen. 2+6+2
8. Write the sources of 'Resveratrol' nutraceutical. Describe the anticancer effect of 'resveratrol'. Write any two importance of 'DADS' for public health improvement. 2+6+2
9. Mention the different sources of PUFA. Write the role of PUFA on CVD prevention. What are xenoestrogen? 3+6+1
10. How curcumin is metabolized in our body? Discuss about the antioxidative and anti-inflammatory properties of curcumin. 2+5+3
