

2018-19

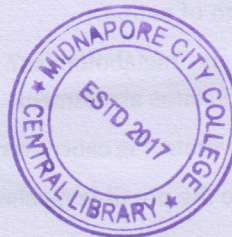
PG (NEW) CBCS
M.Sc. Semester-III Examination, 2019
FOOD SCIENCE & NUTRITION
PAPER: FSN-301
(FUNCTIONAL FOODS AND NUTRACEUTICALS,
FOOD NANOTECHNOLOGY AND FOODOMICS)

Full Marks: 40

Time: 2 Hours

1. Answer any four of the following questions:**2×4=8**

- a) What do you mean by prebiotic?
- b) Define Xenoestrogen.
- c) What is epigenetics?
- d) Write the definition of nutrigenomics.
- e) Define apoptosis.
- f) What do you mean by nutrimetabolomics?
- g) What do you mean by proteom and metabolom?
- h) Define nutraceutical with example.

**2. Answer any four of the following questions:****4×4=16**

- a) State in brief the mitochondrial dependent pathway of cellular apoptosis.
- b) Write the possible ways of nutrients for influencing gene expression citing different models
- c) State the role of folic acid on epigenetics with special reference to hepatic cancer prevention.
- d) "Phytoestrogen is a nutraceutical" – Justify the statement.
- e) Write in short the nanocarrier systems for delivery of nutrients.
- f) State the important features of probiotic microorganism.
- g) Describe in brief about types of proteomics with special reference to nutriproteomics.
- h) Write the major application of nanotechnology in 'Food Science and Nutrition'.

(P.T.O.)

(2)

3. Answer any two of the following questions:**8×2=16**

- a) State the role of Vit-A and ω -3-FA on obesity management from the view point of nutrigenomics. 4+4
- b) State the health friendly effects of probiotics and prebiotics focusing their mechanism of action. 4+4
- c) What is metabolomics? State the importance of metabolomics on nutritional status assessment. 2+6
- d) i. "Resveratrol is cancer rectifying nutraceutical"- Justify the statement.
- ii. Write the possible mechanism of nutriepigenetics. 4+4

