

Department of Food Technology
School of Interdisciplinary Sciences and Technology
Jamia Hamdard, New Delhi-110062

Roll No.....

2023
29th Dec.

M. TECH FOOD TECHNOLOGY, End Semester Examination, 2023

Course Title – Functional Foods & Nutraceuticals (MFTC- 205)

Time: 3 Hours

Max Marks 60

Section A (Answer all the questions)

1*10=10M

Q1. State the Following:

(10M)

- a). Insulin resistance occurs due to (BTL-2, CO4, PO:3,4)
1. An inadequate amount of insulin produced by the body
 2. An inability of the insulin to act at the target organ
 3. Increased breakdown of insulin by the body
 4. All of the above
- b). Which of the following is also known as 'Good Cholesterol' ? (BTL-1, CO7, PO:2,3,4)
1. High Density Lipoprotein (HDL)
 2. Low Density Lipoprotein (LDL)
 3. Intermediate Density Lipoprotein (IDL)
 4. Very Low-Density Lipoprotein (VLDL)
- c). What does body Fat does? (BTL-1, CO4, PO:3,4)
1. Stores energy
 2. Controls blood flow
 3. It is bad for the body and only increases body weight
 4. It has no purpose.
- d). Define Functional foods & Nutraceuticals (BTL-2, CO1, PO:3,4)
- e). Prolonged Diabetes may lead to (BTL-2, CO4, PO:3,4,5)
1. Retinopathy
 2. Cardiovascular Diseases
 3. Nephropathy
 4. All of the above
- f). Atherosclerosis is (BTL-1, CO4, PO:2,3)
1. Fatty deposits clogging the arteries
 2. High blood pressure
 3. Condition of coronary artery disease
 4. Hyperglycemia
- g). Mediterranean diet can be characterized by (BTL-1, CO4, PO:3,4)
1. High consumption of fruit, vegetables, legumes, cereals, and nuts, and, low consumption of dairy products, fish and meat.
 2. Low consumption of fruit, vegetables, legumes, cereals, and nuts, and, high consumption of dairy products, fish and meat.

3. High consumption of date-palms, bread and wine.
 4. Varied type of diets which differ from person to person.
- h). In the context of Dietary Pattern Analysis, what do you think is correct? (BTL-2, CO4, PO:3,4)
1. Dietary patterns are population specific and so may not be generalized.
 2. People may forget and may be unwilling to report their eating habit.
 3. Both of the above
 4. None of the above
- i). For the progression of Type 2 Diabetes, which course of events are correct? (BTL-1, CO4, PO:2,3)
1. Overnutrition - Adipocyte hypertrophy - Inflammation - Insulin resistance
 2. Overnutrition - Insulin resistance - Adipocyte hypertrophy - Inflammation
 3. Inflammation - Overnutrition - Insulin resistance - Adipocyte hypertrophy
 4. Adipocyte hypertrophy - Overnutrition - Inflammation - Insulin resistance
- j). What enzymes are modified in Golden Rice? (BTL-1, CO8, PO:2,3,4)

Section B (Attempt any two questions)

2*10=20M

- Q2. "The health of pregnant and nursing mothers is of utmost importance. Argue with scientific reasoning. Also, enlist the important nutraceuticals for their health. (BTL-6, CO3, PO:4,5)
- Q3. Diabetes is one of the leading metabolic disorders. Explain the role of dietary interventions and nutraceuticals in the prevention of the disease. (BTL-6, CO4, PO:3,4,9)
- Q4. Illustrate in detail the beneficial effects of PUFA and polyphenols in treating different diseases. (BTL-4, CO7, PO:3,4)
- Q5. Explain genetically modified foods with some examples. What are the health benefits and social concerns associated with them? (BTL-4,5 CO8, PO:2,3,4)

Section C (Each Question has two sub-parts. Answer any one in each)

5*6=30M

- Q6. a) Explain pleiotropic effects of bioactive phytochemicals (BTL-2, CO2, PO:2,3)
 b) Briefly describe nutraceuticals important in early infancy. (BTL-2, CO3, PO:3,4)
- Q7. a) What foods are recommended for patients suffering with CVD?(BTL-4, CO4, PO:3,4)
 b) Role of food fortification in correcting nutritional deficiencies. (BTL-5, CO5, PO:1,2)
- Q8. a) State the beneficial effects of spices & honey on health. (BTL-3, CO6, PO:3,4)
 b) Role of dietary fibres & vitamins in regulating human health. (BTL-4, CO7, PO:4,5)
- Q9. a) Describe the regulatory issues for the clinical testing of nutraceuticals. (BTL-5, CO9, PO:4,6)
 b) Explain the effect of probiotics and prebiotics in gut health. (BTL-5, CO8, PO:3,4,5)
- Q10. a) What foods would you recommend for an obese person. (BTL-3, CO4, PO:2,3,4)
 b) How liver and pancreatic disturbances affects human health. Enlist few nutraceuticals beneficial in the related disease. (BTL-5, CO4, PO:3,4)