

B.Tech.
2022
3rd Sem.

ROLL NO- _____

B. TECH FOOD TECHNOLOGY
Semester III Examination (2022)
Course Code- BFTC-303
Course Title – Nutrition and Dietetics

Time: 3 hours

Max. Marks: 75

- Note:** 1. It is **compulsory** to answer all the questions of Section-A.
2. Answer **any four** questions in Section- B.

Section-A (35 marks)

Q1. Fill the blanks with appropriate answers. (5M)

- a) 3F for jaundice diet are _____, _____ and _____.
- b) Total energy expenditure is equal to _____, _____ and _____.
- c) _____ is the amount of sodium chloride according to WHO Formula for Oral Rehydration Solution (ORS).
- d) _____, _____ and _____ are the 3 types of Diabetes Mellitus.
- e) Body mass index (BMI) is a measure of _____ and _____.

Q2. Choose and write the correct answer for the following multiple choice questions. (5M)

- a) A person with the body mass index (BMI) in which range is considered as overweight?
 - i) 30-34.5
 - ii) 25-29.5
 - iii) 15-19.9
 - iv) 20-24.9
- b) Fat provides 9 calories per gram, and its thermic effect of food (TEF) is
 - i) 1-2%
 - ii) 5-10 %
 - iii) 0-3%
 - iv) 20-30%
- c) All are inborn error of metabolism except
 - i) Fructose intolerance
 - ii) Maple sugar urine disease
 - iii) Phenylketonuria
 - iv) Megaloblastic anemia
- d) Caloric values for proteins, carbohydrates and fats are
 - i. 80 cal, 40 cal, and 100 cal respectively
 - ii. 5.6 cal, 4.1 cal, and 9.4 cal respectively
 - iii. 4.1 cal, 5.6 cal, and 2.5 cal respectively
 - iv. 4.6 cal, 50 cal and 80 cal respectively
- e) The RDA of calcium for pregnant women according to ICMR is
 - i) 1000 mg/d
 - ii) 600 mg/d
 - iii) 400 mg/d
 - iv) 500 mg/d

Q3. Answer any three of the following.

(3x3=9M)

- a) What are the objectives of Therapeutic Nutrition?
- b) What are the factors that affect the RDA?
- c) Explain any 2 types of diets on the basis of altered consistency.
- d) Mention any four functional foods with anti-carcinogenic property.

Q4. What are the risk factors and dietary modification associated with the following disease?

Answer any two of the following:

(4x2=8M)

- a) Renal problems
- b) Coronary heart disease
- c) Anemia

Q5. Answer any two of the following:

(4x2=8M)

- a) What are VLDL, HDL and LDL? Explain their role in nutrition.
- b) Explain in detail the process of digestion of fat inside the body.
- a) What are nutrients? List out the three main functions of nutrients? Give the general classification of nutrients with examples?

Section- B (4×10=40 marks)

Q6. Answer any four of the following:

(4x10=40M)

- a) What are the 5 different methods to compute the energy expenditure? Explain any 2 in detail.
- b) What is the significance of BMR and discuss the factors affecting the BMR?
- c) Explain the positive influence of foods for pregnant ladies and lactating mothers.
- d) Mention principles of menu planning. Also discuss the factors affecting meal planning.
- e) Define metabolism and discuss the metabolism of glucose in the cell.
- f) What are the factors that affect the RDA? Explain any 2 types of diets on the basis of altered consistency.

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