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Question Paper Code	12207
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**B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV / DEC 2023**

Seventh Semester

**Computer Science and Engineering**

**20CEOE902 - HUMAN NUTRITION AND HEALTH**

(Regulations 2020)

Duration: 3 Hours

Max. Marks: 100

**PART - A (10 × 2 = 20 Marks)**

Answer ALL Questions

- |  | <i>Marks,<br/>K-Level, CO</i> |
|--|-------------------------------|
| 1. Define the term nutrition.  | <i>2,K1,CO1</i>               |
| 2. Calculate the energy value of 30gms pulses, 70gms rice and 10gms oil. | <i>2,K2,CO1</i>               |
| 3. List the various sources of carbohydrates.                            | <i>2,K1,CO2</i>               |
| 4. What is meant by the Biological Value (BV)?                           | <i>2,K1,CO2</i>               |
| 5. Why is a mixture of oils recommended for daily consumption?           | <i>2,K1,CO3</i>               |
| 6. Define vitamins and classify them.                                    | <i>2,K1,CO3</i>               |
| 7. List the various factors affecting BMR.                               | <i>2,K1,CO4</i>               |
| 8. Give the formula for BMI.   | <i>2,K1,CO4</i>               |
| 9. What are the advantages of menu planning?                             | <i>2,K1,CO5</i>               |
| 10. List the 5 basic food groups.  | <i>2,K1,CO5</i>               |

**PART - B (5 × 13 = 65 Marks)**

Answer ALL Questions

11. a) Write the principles for deriving RDA. Discuss any five importance of RDA. *13,K2,CO1*

**OR**

- b) Explain the functions of carbohydrates in our body. *13,K2,CO1*

12. a) Explain classification of proteins by composition and quality. *13,K2,CO2*

**OR**

- b) Explain animal, plant and invisible food sources of fats. *13,K2,CO2*

13. a) Classify mineral elements, giving two examples for each. *13,K2,CO3*

**OR**

- b) Explain about water soluble vitamins and fat soluble vitamins. *13,K2,CO3*

14. a) (i) Calculate energy required for basal metabolism for an adult woman of 25 years old, weight 50kg, Height 155cm. *7,K3,CO4*  
(ii) Demonstrate on the various units of measurement associated with energy. *6,K3,CO4*

**OR**

- b) Justify the statement- Physical activity increases the energy requirement above the basal metabolism. *13,K3,CO4*
15. a) List the five basic groups giving five examples for each. Explain the main nutrients provided by each group. *13,K2,CO5*
- OR**
- b) Describe the following and state when it is prescribed *13,K2,CO5*
- (i) Balanced Diet.
  - (ii) Clear liquid diet.
  - (iii) Full liquid diet.
  - (iv) Low residue diet.

**PART - C (1 × 15 = 15 Marks)**

16. a) Explain why knowledge of nutrition and food processing is essential for people who prepare or manufacture food. *15,K2,CO6*
- OR**
- b) Explain the disadvantages of consuming ready-to-serve and ready-to-cook foods. *15,K2,CO6*