



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/BHMCT(NEW)/SEM-2/HM-205/2011**

**2011**

**FOOD SCIENCE AND NUTRITION**

Time Allotted : 3 Hours

Full Marks : 70

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

**GROUP – A**

**( Multiple Choice Type Questions )**

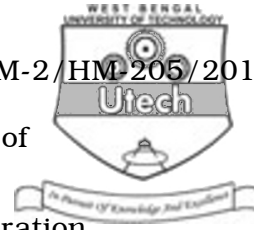
1. Choose the correct alternatives for the following :

10 × 1 = 10

- i) Glucose is the only form of energy used by
  - a) the central nervous system
  - b) the circulatory system
  - c) the musculo-skeletal system
  - d) the digestive system.
  
- ii) Excessive consumption of refined sugars could be one of the cause of
  - a) Dehydration
  - b) Nausea
  - c) Tooth decay
  - d) Anorexia.



- iii) Excessive fibre interferes with the absorption and availability of mineral elements such as
- a) iron and calcium
  - b) sodium and potassium
  - c) magnesium and phosphorous
  - d) iodine and copper.
- iv) Lipid oxidation leads to the development of off-flavor and off-odor generally called
- a) Hydrolysis
  - b) Pyrolysis
  - c) Rancidity
  - d) None of these.
- v) Water act as a medium and solvent, a lubricant, temperature regulator and source of
- a) Nutrients
  - b) Vitamins
  - c) Minerals
  - d) Vitamins and Minerals.
- vi) Lactose found in milk is a
- a) monosaccharide
  - b) disaccharide
  - c) polysaccharide
  - d) none of these.
- vii) Cheese is prepared by coagulation of
- a) Whey
  - b) Renin
  - c) Casein
  - d) Albumin.
- viii) Rendering of fat is the process of
- a) decomposition of fat
  - b) clarification of fat
  - c) extraction of fat
  - d) hydrogenation of fat.



ix) An emulsion can breakdown because of

- a) improper mixing
- b) saturation
- c) temperature
- d) all of these.

x) Browning by caramelizing is the example of

- a) Enzymatic browning
- b) Non-enzymatic browning
- c) Lipid browning
- d) None of these.

**GROUP – B**

**( Short Answer Type Questions )**

Write short notes on any *three* of the following.

3 × 5 = 15

2. Factors of food.
3. Essential and non-essential amino acids.
4. Antioxidants.
5. Pasteurization.
6. Ageing of meat.
7. Artificial sweeteners.



**GROUP – C**

**( Long Answer Type Questions )**

Answer any *three* of the following.  $3 \times 15 = 45$

8. What is nutrition ? What are the nutritional components of the foods we consume ? What are the requirements for positive health ? Write in brief the physiological functions of food.  $2 + 4 + 5 + 4$
9. Define energy and kilo calorie. Write in brief the factors affecting both energy expenditure and requirement.  $2 + 13$
10. Define and classify carbohydrate and protein. Write three important functions of each.  $2 + 7 + 6$
11. What is proximate composition of food constituents ? Why is sensory evaluation of importance to the food industry ? Classify the different methods for evaluation of food quality.  $2 + 6 + 7$
12. Define food preservation and food processing. What are the different preservation methods practiced ? Mention the substantial advantages of canning. What is blanching ? Name two common preservatives used to preserve tomato sauce and pickle.  $2 + 7 + 6$
13. Define a balanced diet. What are the factors to be considered before planning a balanced meal ? List the five basic food groups giving examples for each and stating the main nutrients provided by each group. What do you mean by menu planning ?  $2 + 4 + 6 + 3$

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