Nutrition Charts Calorie Calculation and Glycaemic Index

Experiment 23 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To calculate the energy of a fictional meal and interpret a nutrition chart.

Principle

Food energy calculations use nutrient amounts; glycaemic index compares the blood-glucose response to a defined available-carbohydrate portion with a comparator food.

Key Points

- Carbohydrate and protein provide about 4 kcal/g; fat about 9 kcal/g.
- Use the same edible portion and units when comparing food-chart entries.
- GI does not describe portion size, total nutrient quality or the whole mixed-meal response.

Practice Scenario

Illustrative meal data: carbohydrate 60 g, protein 15 g and fat 10 g. Energy = 240 + 60 + 90 = 390 kcal.

Activity Procedure

1. Read chart

Record the serving mass and carbohydrate, protein and fat entries from the assigned food chart.

2. Calculate

Multiply each macronutrient amount by its energy factor and sum.

3. Interpret GI

Explain that GI is a comparative response measure under standard conditions.

4. Plan meal

Describe an original varied meal and justify portion and food-group choices.

Record and Observations

Field	Activity record
Food / portion	_____
Carbohydrate / protein / fat, g	_____
Calculated energy, kcal	_____
GI context / meal balance	_____

Result

Complete the record using your activity, then state the findings, the action required and the reason for that action.

Viva Questions and Answers

1. What is the fat energy factor?

About 9 kcal/g.

2. Why record portion mass?

Nutrient totals change with the amount eaten.

3. Does low GI mean nutritionally complete?

No; the overall food and meal composition also matter.

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