

Assignment - 1

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CONCEPT OF FOOD AND NUTRITION

AND METHOD OF COOKING

SUBMITTED TO —

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INTRODUCTION

Food is one of the basic necessities of life. It provides the energy and nutrients required for growth, development, repair and maintenance of the human body. Food also has social, cultural and psychological importance.

Food Science is the study of the physical, chemical, biological and nutritional properties of food and the changes that occur during preparation, processing, storage and cooking.

Nutrition is the science concerned with the intake, digestion, absorption, metabolism and utilization of nutrients by the body.

Food science and nutrition are closely related because the composition and preparation of food influence the nutrients available to the body.

Cooking is an important part of food preparation. Diff. cooking methods can change the taste, texture, appearance, digestibility and nutritional value of food. Standard food-science curricula commonly classify cooking into moist-heat, dry-heat & combination methods.

* Food - It is the basic necessity of life that supplies energy, enables physical growth, repairs tissues, & regulates bodily processes.

* Nutrition - The Science of Nutrition that studies how the body ingests, digests, absorbs, and uses nutrients from food to maintain health and prevent disease.

CONCEPT OF FOOD —

Food refers to any edible substance that can be consumed by humans and provides nutrients, energy or other components needed by the body.

Food May Come from —

- PLANTS
- ANIMALS
- FUNGI
- MICROORGANISMS
- PROCESSED OR MANUFACTURED SOURCES.

Examples — include cereals, pulses, fruits, vegetables, milk, eggs, meat, nuts and seeds.

Food does more than simply provide nutrients. It also contributes to pleasure, social interaction, culture & traditions.

MAIN PURPOSES OF FOOD —

- 1) Providing Energy
- 2) Supporting growth
- 3) Repairing body tissues
- 4) Maintaining normal body functions
- 5) Protecting against nutritional deficiencies
- 6) Supporting immunity
- 7) Providing satisfaction & pleasure
- 8) Maintaining health.

CONCEPT OF NUTRITION

→ Food can be described as a substance that is consumed and utilized by the body to provide energy, nutrients and materials necessary for growth, maintenance and normal functioning.

-- Definit

- Carbohydrates
- Proteins
- Fats
- Vitamins
- Minerals
- Water
- Dietary fibre
- Other bioactive Compounds.

FUNCTIONS OF FOOD --

A) Physiological Functions

1) Energy - giving function -

Carbohydrates and fats are important sources of energy, while proteins can also provide energy when required.

2) Body - building function -

Proteins help in growth & repair of body tissues.

3) Protective function -

Vitamins, minerals and other food components help maintain normal body functions and support health.

4) Regulatory function -

Water, vitamins, minerals and other nutrients participate in various body processes.

B) Psychological Functions —

Food can provide —

- Pleasure
- Satisfaction
- Comfort
- Appetite Stimulation

C) Social & Cultural Functions —

Food is strongly connected with —

- Festivals
- Religious traditions
- Family gatherings
- Weddings
- Celebrations
- Regional Culture

Classification of food —

According to source —

PLANT FOODS → • Cereals • Vegetables
• Pulses • Nuts
• Fruits • Seeds

ANIMAL FOODS → • Milk • Meat
• eggs • fish

According to major nutrients —

Energy-Giving Foods → • Cereals • Oils
• Sugar • Fats

Body-Building Foods → • Milk • Meat
• eggs • fish
• Pulses

Protective Foods → • Fruits
• Vegetables
• Milk

CONCEPT OF NUTRITION

Nutrition is the science of food and its relationship with health.

★ Nutrition can be defined as the process by which the body obtains, digests, absorbs, transports, utilizes and excretes nutrients from food.

— It involves —

Food intake → Digestion → Absorption → Transportation



Excretion ← Utilization ← Metabolism

★ Good Nutrition is important for —

- Growth
- Development
- Energy
- Immunity
- Tissue repair
- Normal physiological functions.
- Overall health.

⇒ Importance of Nutrition —

- Normal growth and development
- Maintaining body weight
- Energy production
- Healthy bones & muscles
- Normal immune function
- Tissue repair
- Brain function

— CLASSIFICATION OF NUTRIENTS —

Macronutrients

- Carbohydrates
- Proteins
- Fats

Micro nutrients

- Vitamin
- Minerals

MACRONUTRIENTS —

A) Carbohydrates —

They are one of the Major sources of energy.
Sources → Rice, wheat, Maize, Bread, Potatoes.
Functions → Provide energy, spare protein.

B) Proteins —

They are imp. body-building nutrients made up of amino acids.
Sources → Pulses, Beans, Milk, Curd, Paneer.
Functions → Growth, Tissue Repair.

C) Fats —

They are concentrated sources of energy.
Sources → Vegetable oils, Ghee, Butter.
Functions → Provide energy, Help absorption of fat-soluble vitamins.

MICRONUTRIENTS —

A) Vitamins —

Vitamins are organic compounds required in small quantities for normal physiological functions.

Examples — Vitamin A, Vitamin B-complex, Vitamin C, D, E, K.

B) Minerals —

Minerals are inorganic elements needed for various functions.

Examples — Calcium, Iron, Zinc, Iodine.

Examples of functions —

Calcium → bones and teeth

Iron → haemoglobin formation

Iodine → thyroid hormone production.