PHS202 NUTRITION IN HEALTH AND DISEASES SUMMARY

_____is defined as the study of food composition and its effects on the body.
Nutrition

_____ can be defined as an art and science of nourishing the body.
Nutrition

_____ can be described as a science because it can be proven in animals or human beings.
Nutrition

Deficiency of riboflavin (Vitamin B2) leads to _____
angular stomatitis

Riboflavin is also called_____
Vitamin B2

Excessive intake of macronutrients such as protein, carbohydrate and fats/oil foods can lead to_____.
overweight or obesity

_____ is an art because the way the food is presented to the consumer may either be appealing or unappealing regardless of its nutritious values.
Nutrition

_____ is an edible substance that human being or animals eat or drinks that supply the nutrients that will sustain, maintain and promote life and growth.
Food

_____ are chemical components of food that supply nourishment to the body.
Nutrients

_____ are very small molecules that are also part of food composition that are needed in small quantities in the body but very important for good health.
Micronutrients

Examples of _____ are iodine, zinc, iron, vitamin A, selenium and others.
micronutrients

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_____ is a diet that contains all the essential nutrients taking in the right proportion at a sitting.
Adequate diet

An adequate diet can also be referred to as_____.
balanced diet

Malnutrition simply means _____.
bad nutrition

_____ refers to the quality and quantity of essential nutrients that each food contains that will promote and rehabilitate good health.
Food value

_____ is defined as the availability of food-stuffs in adequate quantity and quality to every member of the household regardless of age, sex, religion, and individual condition.
Food security

_____ is the utilization of the food nutrients in the body system in order to restore, maintain and promote quality and healthful life.
Nutrition security

An adequate diet does not have to be expensive.
True

_____ generations have depended on agriculture.
Five hundred

Five hundred generations have depended on_____.
agriculture

The _____ were domesticated to produce milk and protein.
Homo sapiens

The Homo sapiens were domesticated to produce _____ and protein.
milk

The Homo sapiens were domesticated to produce milk and_____.
protein

The Homo-sapiens dietary behaviors have definitely changed our evolutionary diet due to _____ and industrial revolution.

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agricultural

The Homo-sapiens dietary behaviors have definitely changed our evolutionary diet due to agricultural and_____.
industrial revolution

_____ generations have lived since the start of the industrial age.
Ten thousand

Ten thousand generations have lived since the start of the_____.
industrial age

The _____ has led to refining the grains into flour, processing of animal protein, thereby adding additives, salts and fats and oils to preserve the processed foods.
industrial revolution

The _____ has also led to establishment of plethora of fast food restaurants.
industrial revolution

The _____ has brought a drastic shift from diets high in fruits and vegetables, lean meat, and sea food to highly processed foods high in sodium and hydrogenated fats and low in dietary fiber.
industrial revolution

Over the past _____ years, the dietary behaviour of Homo sapiens have changed tremendously due to agricultural and industrial revolutions.
100

_____ prepared the first food composition tables.
Atwater, W.D

_____ discovered glycogen (animal starch) and also proclaimed the pancreatic juice that is necessary for the absorption of fats.
Bernard, C.

_____ identified thiamine to be responsible for beri-beri.
Davidson and Passmore

_____ associated pellagra disease with population subsisting mainly on corn.
Goldberg

_____ known as the 'father of medicine' was the first to show that children consumed more food than adults.

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Hippocrates

_____ identified certain food substances that when absent could lead to certain diseases such as rickets and scurvy.
Hopkins, F.C.

_____ known as 'father of nutrition demonstrated that the food that was eaten was like a fuel in the body and that the more a man worked, the more food needed.
Lavoisier, AL

_____ taught that fats and carbohydrates were fuel foods and later called nutrients that formed body tissue during growth.
Liebig B.J

_____ was the first to conduct controlled clinical trials on the reason for fresh fruits and vegetables would cure scurvy.
Liud

_____ demonstrated that food containing nitrogen was essential to life.
Magendle F.

_____ proved that when air was breathed in it was taken up by blood and transported to the part of the body.
Mayow

_____ reported that the well being and stature of people were attributed to their diets.
McCarrison R.

_____ identified the nitrogen content in food to be protein meaning 'to take first place'.
Mulder GJ

_____ conducted studies that discovered the gas called oxygen.
Prestley J

Prestley J conducted studies that discovered the gas called_____.
oxygen

_____ was the first to classify food into three groups, foods of animal origin, foods of a vegetable origin and a group of fatty or oily foods.
Prout W.

_____ demonstrated that stomach did not grind food, but rather it produced chemical that affect the food.

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Reaumar, R

_____ investigated digestion of food in the stomach and the function of the gastric juice.
Spallanzani

_____ experimented with himself to detect all that happened to food consumed by weighing everything he ate, drank
Sanctorius

_____ provided quantitative knowledge of nutritional requirements for man.
Sherman

_____ proposed addition of milk and vegetables to wipe off beri- beri among the salors.
Takaki

_____ was the first person to work on nitrogen balance studies using dogs as experimental animals.
Voit C

_____ era witnessed researches in human nutrition that focused on the role of essential nutrients, especially vitamins in human deficiency diseases.
First Half of 20th Century

It was after the _____ that research in nutrition in industrial countries began to focus on the role of diet in non communicable diseases such as diabetes mellitus, cancer and cardiovascular diseases.
Second World War

NCCD stands for_____
non communicable diseases

The following are the usefulness of nutrition research

- It helps to understand the important nutrients in food that prevent deficiencies.
- It assists to pinpoint the major nutrients that may be involved in the aetiology of obesity, cancer and cardiovascular diseases.
- It provides guidelines aimed at reducing the risk of one or more non-communicable diseases (NCCDs).
- It gives an insight as to the role of diet in NCCDs.
- It helps to develop step by step evaluation of scientific evidence relating to dietary composition of foods, food groups and dietary patterns to maintenance of health.
- It helps to investigate the role of diet in the maintenance of health and the reduction of the risk of NCCDs.

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- It helps to identify dietary factors that influence specific diseases and explains the mechanisms.

_____ is an edible digestible, absorbable and utilizable substance that maintains, restores and promote growth and quality health.
Food

_____ can be defined as an edible substance that human being
Food

_____ is defined as the ways in which human beings use food that includes selection, touch, smell and presentation.
Food habits

Food habits is also referred to as_____
food culture

_____ can be defined as basic food which is the main regular constituent of a meal of a group of people, a tribe, a region or a community.
Staple food

Maize, green plantain, cassava or other tubers are _____ of certain parts of Africa.
staple foods

_____ and potatoes are the staple foods for India and Ireland respectively.
Rice

Maize, green plantain, cassava or other tubers are staple foods of certain parts of_____.
Africa

Rice and _____ are the staple foods for India and Ireland respectively.
potatoes

Rice and potatoes are the staple foods for _____and Ireland respectively.
India

Rice and potatoes are the staple foods for India and _____respectively.
Ireland

_____ is the staple foods for Europe
Bread

_____ are staple foods for United States.

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Hamburger and French fries

Hamburger and French fries are staple foods for_____.
United States

Bread is the staple foods for _____
Europe

_____ and French fries staple foods for United States.
Hamburger

Hamburger and _____ staple foods for United States.
French fries

Culture, Kittler and Sucher defined _____ as the 'values, beliefs, attitudes, and practices accepted by members of a group or community.
culture

_____ can be learnt, it is not inherited, it is passed from generation to generation.
Culture

A _____ may arouse the feelings of pleasure, prosperity, happiness, sadness, masculinity, femininity, poverty, power or comfort.
food

_____ is the vehicle by which one nourishes the body.
Food

The primary function of food is _____.
to supply energy to the body

The energy nutrients include _____, fats and proteins.
carbohydrates

The energy nutrients include carbohydrates, _____and proteins.
fats

The energy nutrients include carbohydrates, fats and_____.
proteins

The energy nutrients include _____
carbohydrates, fats and proteins

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The food source of _____ is carbohydrate, fats and oils.
energy

The food source of energy is _____.
carbohydrate, fats and oils

The food source of energy is _____, fats and oils.
carbohydrate

The food source of energy is carbohydrate, _____ and oils.
fats

The food source of energy is carbohydrate, fats and_____.
oils

_____ serves as a socializing agent or as means of friendship.
Food

Snails and snakes for examples are forbidden to infants and pregnant women because_____
such foods will make the infants unable to walk or crawling excessively

_____ is one of the major instruments used by food industries to appeal to consumers to buy their food products.
Advertising

The Christians and Muslims when fasting have certain food habits which everybody in the family accepts.
True

_____ and texture are two of the most significant factors for choosing certain foods.
Flavour

Flavour and _____ are two of the most significant factors for choosing certain foods.
texture

Carbohydrate is one of the essential nutrients in food.
True

There are _____ types of carbohydrates
two

The two types of carbohydrates:_____
simple and complex carbohydrates

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_____ are easily digestible by humans and animals.
Simple carbohydrates

Examples of simple carbohydrates are monosaccarides and diasassacharids.

_____ carbohydrates are easily digestible by humans and animals.
Simple

Simple carbohydrates are easily digestible by _____ and animals.
humans

Simple carbohydrates are easily _____ by humans and animals.
digestible

Simple carbohydrates are easily digestible by humans and_____.
animals

The most important _____is glucose.
monosaccharide

_____ is needed every second by the brain.
Glucose

Glucose is needed every _____ by the brain.
second

Glucose is needed every second by the_____.
brain

The most important monosaccharide is _____.
glucose

Glucose is needed every second by the brain.
True

The _____ are two molecules of sugar, such as sucrose, maltose and lactose.
Diasaccharides

_____ is broken down to fructose and glucose
Sucrose

Sucrose is broken down to _____ and glucose

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fructose

Sucrose is broken down to fructose and _____
glucose

Sucrose is broken down to_____
fructose and glucose

_____ is broken down to two molecules of glucose.
Maltose

Maltose is broken down to _____ molecules of glucose.
two

Maltose is broken down to two molecules of_____.
glucose

Lactose is popularly referred to as_____.
milk sugar

Upon digestion _____ yields glucose and galactose.
lactose

Upon digestion lactose yields _____and galactose.
glucose

Upon digestion lactose yields glucose and_____.
galactose

_____ are polysaccharides that contains as many as 2000 simple carbohydrates units in long chains.
Complex carbohydrate

Complex carbohydrate are _____ that contains as many as 2000 simple carbohydrates units in long chains.
polysaccharides

Complex carbohydrate are polysaccharides that contains as many as _____ simple carbohydrates units in long chains.
2000

_____, glucogen, and cellulose are examples of complex carbohydrates.
Starch

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Starch, _____, and cellulose are examples of complex carbohydrates.
glucogen

Starch, glucogen, and _____ are examples of complex carbohydrates.
cellulose

Starch, glucogen, and cellulose are examples of_____.
complex carbohydrates

_____ is found in seeds, and grains and tubers.
Starch

_____ is a form of glucose storage in animals.
Glycogen

Glycogen is a form of _____ storage in animals.
glucose

Glycogen is a form of glucose storage in_____.
animals

The following are the functions of carbohydrates

- It supplies energy which serves as body fuel to both internal and external activities.
- It spares protein from being used as a source of energy.
- It supplies glucose to the body especially the brain
- It helps the body to burn body fat.
- It adds flavour to our diet.
- It helps in the formation of genetic materials (Deoxyribonucleic acid

One grain of carbohydrate will supply _____ kilocalories to the body.
4

Digestion of carbohydrates begins in the _____and ends in the_____.
mouth, small intestine

Digestion of _____ begins in the mouth and ends in the small intestine.
carbohydrates

Digestion of carbohydrates begins in the _____ and ends in the small intestine.
mouth

Digestion of carbohydrates begins in the mouth and ends in the_____.

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small intestine

In the_____, the food is chewed and broken down into small pieces and mixed with saliva which contains salivary amylase ptyalin.
mouth

In the mouth, the food is chewed and broken down into small pieces and mixed with saliva which contains_____.
salivary amylase ptyalin

In the mouth, the food is chewed and broken down into small pieces and mixed with saliva which contains salivary_____.
amylase ptyalin

In the mouth, the food is chewed and broken down into small pieces and mixed with _____which contains salivary amylase ptyalin.
saliva

The duodenum (the first part of the small Intestine) that contains _____
pancreatic amylase

The enzymes in the intestine are

- Maltase
- Sucrose
- Lactase
- Pancreatic amylase

_____ breaks down maltose into two molecules of glucose.
Maltase

Maltase breaks down _____ into two molecules of glucose.
maltose

Maltase breaks down maltose into _____ molecules of glucose.
two

Maltase breaks down maltose into two molecules of_____.
glucose

_____ breaks down lactose into one molecule each of glucose and galactose and sucrase converts sucrose into one molecule each of glucose and fructose.
Lactase

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_____ requirement is increased during pregnancy, lactation and infancy.
Energy

Energy requirement is increased during_____, lactation and infancy.
pregnancy

Energy requirement is increased during pregnancy, _____and infancy.
lactation

Energy requirement is increased during pregnancy, lactation and_____.
infancy

Energy requirement is increased during _____.
Infancy

Energy requirement is _____ during pregnancy, lactation and infancy.
increased

The major carbohydrates are found in sugars, cereal grains (corn, millet, wheat, rice, guinea corn, acha), legumes (beans, soya beans, groundnut, and dried fruits, tubers and vegetable).

The word "protein' simply means_____
to come first

_____ is the most indispensable nutrient that supplies essential and non-essential amino acids.
Protein

Protein can be simply grouped under _____ broad headings
two

Protein can be simply grouped under two broad headings:_____
animal and plant protein

Animal protein sources are usually referred to as _____
complete protein

Animal protein sources are usually referred to as complete protein because_____
it contains all the essential amino acids (Isoleucine, Leucine, Lysine, methionine, phenylalanine, threonine, tryptophan, and valine)

For infants, _____is listed as 9th amino acid essential for them.
histidine

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For_____, histidine is listed as 9th amino acid essential for them.
infants

For infants, histidine is listed as _____ amino acid essential for them.
9th

For infants, histidine is listed as 9th _____ essential for them.
amino acid

Proteins are majorly classified according to their _____ and other physical properties.
solubility

Proteins are majorly classified according to their solubility and other _____properties.
physical

_____ are protein substances that yield amino acids after complete hydrolysis.
Simple proteins

Albumen of egg, keratin of hair and goblin of hemoglobin are examples of_____.
simple proteins

_____ are protein compounds with some other non protein molecules or molecules with metal upon hydrolysis.
Conjugal proteins

Examples are haemoglobin (protein + heme) of blood, casein (protein + phosphoric acid of milk and lipoprotein (protein + lipid) in blood plasma.

_____ are products formed from the partial breakdown of proteins by the action of heat and other physical forces or by hydrolytic agents, peptones, polypeptides, and peptides (mixtures of amino acids with decreasing numbers of amino acids in the chains length).
Derived proteins

The following are the functions of protein

- Provide amino acids for the body to build new tissues, and normal growth of infants.
- Help to maintain body tissue and replacement of damaged or worn out tissues in both adults and children.
- Help in the formation of hormones, enzymes and antibodies.
- Serve as source of energy in the absence of carbohydrate.

_____ digestion starts from the stomach.
Protein

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Protein digestion starts from the_____.
stomach

The long chains of _____ are split into smaller units by an inactive enzyme pepsinogen that is converted to pepsin upon being in contact with hydrochloric acid.
proteins

The long chains of proteins are split into smaller units by an inactive enzyme _____ that is converted to pepsin upon being in contact with hydrochloric acid.
pepsinogen

The long chains of proteins are split into smaller units by an inactive enzyme pepsinogen that is converted to _____ upon being in contact with hydrochloric acid.
pepsin

The long chains of proteins are split into smaller units by an inactive enzyme pepsinogen that is converted to pepsin upon being in contact with_____.
hydrochloric acid

The main protein connective tissue called _____ is digested by pepsin.
collagen

The main protein connective tissue called collagen is digested by_____.
pepsin

The vast majority of protein digestion occurs in the_____.
duodenum

The liquefied mass of food called _____ passes through the pyloric sphincter into small intestine where the activation of enterokinase, an enzyme that activates pancreatic trypsinogen into trypsin.
chime

_____ , chymotrypsin and carboxypolypetidase breakdown the links of polypeptide chains and further subdivide them into small polypetides.
Trypsin

Trypsin, _____and carboxypolypetidase breakdown the links of polypeptide chains and further subdivide them into small polypetides.
chymotrypsin

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Trypsin, chymotrypsin and _____breakdown the links of polypeptide chains and further subdivide them into small polypetides.
carboxypolypetidase

_____ breakdown the links of polypeptide chains and further subdivide them into small polypetides.
Trypsin, chymotrypsin and carboxypolypetidase

Trypsin, chymotrypsin and carboxypolypetidase breakdown the links of _____and further subdivide them into small polypetides.
polypeptide chains

Trypsin, chymotrypsin and carboxypolypetidase breakdown the links of polypeptide chains and further subdivide them into small_____.
polypeptides

For adult men and women 18 to 35 years of age, the recommended daily dietary allowance of protein is_____.
one gram per kilogram of body weight

A deficiency disease of protein is called _____
protein energy malnutrition (PEM)

Protein energy malnutrition (PEM) was formerly known as _____
Protein Caloric malnutrition (PCM)

The term _____ refers to both calorie and fats.
energy

The term energy refers to both _____ and fats.
calorie

The term energy refers to both calorie and_____.
fats

The patterns of PEM are_____
kwashiorkor, marasmus, marasmic – kwashiorkor and under nutrition

All _____ proteins are first class protein because they contain all the essential amino acids.
animal

_____ proteins on the other hand are regarded as second class protein because they lack one or two essential amino acids.

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Plant

All animal proteins are first class protein _____
because they contain all the essential amino acids

Plant proteins on the other hand are regarded as second class protein because_____
they lack one or two essential amino acids

When you add an animal protein to a protein from plant source, such a combination is regarded as_____.
supplementary protein

_____ are the combinations of two important plant protein sources.
Complementary proteins

Example of complementary proteins are_____
Beans and rice, maize and groundnut

_____ are deficient in lysine and legumes are deficient in methionine.
Grains

Grains are deficient in _____ and legumes are deficient in methionine.
lysine

Grains are deficient in lysine and legumes are deficient in_____.
methionine

Grains are deficient in lysine and _____ are deficient in methionine.
legumes

Rice, millet, maize and wheat are _____
grains

Beans and groundnut are _____
legumes

The food sources of _____ include fish, crayfish, eggs, milk, goat meat, pork, chicken, turkey, crab, breast milk etc.
animal proteins

The food sources of animal proteins include_____
fish, crayfish, eggs, milk, goat meat, pork, chicken, turkey, crab, breast milk etc.

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The major _____ protein sources are cowpea seeds, soybeans, groundnuts, locust beans, pinto beans, red kidney beans and lima beans.
plant

_____ refers to fats or fat like substances.
Lipids

Lipids are classified into _____ groups
two

Lipids are classified into two groups: _____and compound lipids.
simple

Lipids are classified into two groups: simple and _____lipids.
compound

_____ are the esters of fatty acids and alcohol.
Simple lipids

Examples of ester of fatty acids include _____
animal and vegetable fats

_____ are esters of fatty acids containing groups in addition to an alcohol and a fatty acid.
Compound lipids

Generally, _____ are fats and oils.
lipids

Generally, lipids are _____ and oils.
fats

Generally, lipids are fats and_____.
oils

_____ are solid at room temperature
Fats

Fats are _____ at room temperature
solid

_____ are liquid at room temperature
Oils

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Oils are _____ at room temperature
liquid

_____ are greasy or oily to the touch and they are commonly found in plants and animals.
Fats and oils

Fats and oils are greasy or oily to the touch and they are commonly found in_____
plants and animals

The amount of energy in fats and oils doubles that of protein and carbohydrate.
True

One gram of carbohydrates and protein will yield _____kcal.
4

_____ can be described as the building blocks of lipids (fats and oils).
Fatty acids

Fatty acids are made up of _____ carbon (CH)
hydrogen

Fatty acids are made up of _____
hydrogen carbon (CH)

_____ fats contain more of saturated fatty acids.
Animal

_____ contain more of saturated fatty acids.
Animal fats

Animal fats contain more of _____ fatty acids.
saturated

Animal fats contain more of saturated_____ .
fatty acids

Animal fats contain more of saturated fatty acids.
True

The oils are liquid at room temperature because_____
they contain unsaturated fatty acids

The following are the functions of fats

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- Fat helps the body to transport fat soluble vitamins (A, D, E and K).
- Fat helps in protecting the internal organs of the body by serving as cushion pad, for example the kidney.
- Oils provides the essential fatty acids which help in preventing excessive loss of water.
- Fat gives taste and feeling of satisfaction in a meal.
- Without fats food will be too dry to eat.
- Dietary fat stored as adipose tissue in man helps man to survive without food for some weeks.
- Fat is used by food manufacturers for smoothness and tenderness.

The digestion of fats begin in the_____.
small intestine

The fats are split by the _____ and the pancreatic lipase.
bile

The fats are split by the bile and the_____.
pancreatic lipase

The _____ is secreted by the liver.
bile

The bile is secreted by the_____.
liver

The end products of fats are _____, glycerol and glycerides.
fatty acids

The end products of fats are fatty acids, _____and glycerides.
glycerol

The end products of fats are fatty acids, glycerol and_____.
glycerides

The end products of fats are_____
fatty acids, glycerol and glycerides

The end products of _____ are fatty acids, glycerol and glycerides.
fats

_____ contains a lot of palmitic acid which is made up of saturated fatty acids.
Palm oil

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Palm oil contains a lot of _____ which is made up of saturated fatty acids.
palmitic acid

Palm oil contains a lot of palmitic acid which is made up of_____.
saturated fatty acids

Rich sources of fats are mainly from animal food sources such as _____
pork, meat, whole milk and cheese

Generally, _____ are inorganic elements which are essential for the correct functioning of the body.
minerals

The body contains approximately _____% minerals which must be supplied by the diet.
4

Minerals do not provide energy by themselves but because _____
they form part of the tissue and skeleton they are essential for growth

Minerals exist as_____
inorganic ions

Minerals exist as _____ ions
inorganic

Minerals exist as inorganic ions, that is _____
they do not contain carbon

Minerals cannot be changed during digestion.
True

Minerals can be classified into _____ classes
two

Minerals can be classified into two classes: _____ and micro minerals.
macro

Minerals can be classified into two classes: macro and _____
micro

Minerals can be classified into two classes_____
macro and micro minerals

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The _____ minerals are those that the body needs in larger amounts more than 5 grams (a teaspoon).
macro

_____ and phosphorous are the two major minerals needed by the body in the highest quantities.
Calcium

Calcium and _____are the two major minerals needed by the body in the highest quantities.
phosphorous

_____ are those that the body needs in minute quantities less than 5 grams.
Micro minerals or trace minerals

The following are the functions of minerals

- They are building parts in the hard tissues of the body (bones and teeth).
- They give rigidity to bones, teeth and the whole body.
- They are part of soft tissues (muscle, protein and nervous tissues are made up of sulfur and phosphorous).
- They are components of essential hormones that contribute to healthy body system
- They contribute to the body fluids and tissues as electrolytes concerned with the maintenance of osmotic pressure, and acid-base balance.
- They also contribute to membrane permeability and muscle irritability and oxygen transport (sodium, potassium, chloride, phosphorous, calcium, magnesium and iron).
- They are essential for blood clot formation.
- They are catalysts in enzymes and hormone system.
- They make possible normal rhythm in the heart beat.

_____ are group of organic substances needed by the body in minute quantities but essential for normal metabolism, growth and development of the body.
Vitamins

Vitamins do not yield any end product
True

Vitamins can be classified into _____ main groups
two

Vitamins can be classified into two main groups. These two groups are_____ and_____.
fat and water soluble

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_____ vitamins are generally stable to heat and they can only be transported in the body in the presence of fat.
fat soluble

_____ vitamins on the other hand, are not always stable to heat.
water soluble

Vitamin A is also called _____
Retinol

Vitamin D is also called _____
Calciferol

Vitamin E is also called _____
Tocopherol

Vitamin C is also called _____
Ascorbicacid

VitaminB1 is also called _____
Thiamine

VitaminB2 is also called _____
Riboflavine

VitaminB5 is also called _____
Niacinor Nicotinic acid

VitaminB6 is also called _____
Pyridoxine

VitaminB9 is also called _____
Folate or Folic acid

VitaminB12 is also called _____
Cobalamin

ICF stands for_____
intracellular fluid

ECF stands for_____
extracellular fluid

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_____ is defined as tasteless, colourless, odourless and clear fluid that is made up of hydrogen and oxygen.
Water

Water can be classified as either _____or soft.
hard

Water can be classified as either hard or_____.
soft

The two main sources of drinking water are _____ and ground water.
surface

The two main sources of drinking water are surface and _____water.
ground

The two main sources of drinking water are _____.
surface and ground

Surface water comes from _____ and rivers.
lakes

_____ water comes from lakes and rivers.
Surface

Surface water comes from lakes and_____.
rivers

Surface water comes from_____.
lakes and rivers

The _____ water comes from underground rock.
ground

The ground water comes from _____ rock.
underground

The ground water comes from underground_____.
rock

The ground water comes from_____.
underground rock

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The level of _____ present in water will determine the level of the hardness of the water.
chemical

The level of chemical present in water will determine the level of the _____of the water.
hardness

The level of chemical present in water will determine the level of the hardness of the water.
True

The following are the functions of water

- Water supports life, without it human being cannot survive.
- Water serves as intracellular and extracellular fluid.
- It forms a good medium for removing heat from the body because it has great ability to hold heat.
- It helps to remove waste products from the body
- It serves as lubricant in the knees and joints of the body.
- It is used for the construction of every cell.
- Water forms the major part of foods and human body.
- It serves as a solvent for nutrients; it liquefies food so that it can be properly digested.

An average individual requires about _____ of water on daily basis.
two litres or eight cups

The body also makes its own water from the _____ of carbohydrates, fats and protein metabolism.
byproduct

The body also makes its own water from the byproduct of_____, fats and protein metabolism.
carbohydrates

The body also makes its own water from the byproduct of carbohydrates, _____and protein metabolism.
fats

The body also makes its own water from the byproduct of carbohydrates, fats and_____.
protein metabolism

_____ defined dietary fiber, as "The skeletal remains of plant cells that are resistant to hydrolysis by the enzymes of man".
Trowell (1972)

Trowell (1972) defined_____, as "The skeletal remains of plant cells that are resistant to hydrolysis by the enzymes of man".

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dietary fiber

The Life Science Research Office (1987) defines _____ as "the endogenous components of plant materials in the diet which are resistant to digestion by enzymes produced by humans".
dietary fiber

Whitney, Cataldo and Rolfes (1998) defined _____ as the structural parts of plants and are found in all plant – derived foods – vegetables, fruits, grains, and legumes".
dietary fiber

In plants, _____is stored as starch in the plant cells
glucose

In_____, glucose is stored as starch in the plant cells
plants

In plants, glucose is stored as _____in the plant cells
starch

In plants, glucose is stored as starch in the plant _____
cells

The _____ stores glucose as glycogen.
human body

The human body stores _____ as glycogen.
glucose

The human body stores glucose as_____.
glycogen

Total dietary fiber can be broadly divided into_____
two

Total dietary fiber can be broadly divided into: _____and Lignin.
non-starch polysaccharides

Total dietary fiber can be broadly divided into: non-starch polysaccharides and_____.
Lignin

Total dietary fiber can be broadly divided into:_____
non-starch polysaccharides and Lignin

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_____ is a non-polysaccharides fiber that gives the plant its strength.
Lignin

_____ is an insoluble fiber
Lignin

Lignin is an _____ fiber
insoluble

Lignin is an _____
insoluble fiber

The non-starch polysaccharides are further divided into _____ and cellulose.
non-cellulose polysaccharides
The non-starch polysaccharides are further divided into non-cellulose polysaccharides and_____.
Cellulose

The non-starch polysaccharides are further divided into:_____
non-cellulose polysaccharides and cellulose

_____ is the primary constituent of plant cell walls and hemicelluloses are the main composition of cereal fibers (wheat, brown rice, vegetables).
Cellulose

Both cellulose and hemicellulose are insoluble in water.
True

_____ are found in vegetables and fruits, especially citrus fruits, apples, banana, oranges, carrots, oats, and kidney beans.
Pectins

The health benefits of soluble dietary fiber include;
1. Delaying the stomach's emptying and the transit of chyme (through the intestine.
2. Delay glucose absorption
3. Lower blood cholesterol

The health benefits of insoluble dietary fiber include:
1. Speed up the transit of chyme through the intestine (whole grains).
2. Increase fecal weight.
3. Slow starch breakdown and delay glucose absorption into the blood.

Foods can be classified into _____ different ways.

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five

Food classification can also be grouped according to the major _____such food is made up.
nutrient

The _____ was developed to help individuals to choose an adequate and healthful diet.
food guide pyramid

The advantages of food grouping include the following

- It encourages consumers to eat healthily
- It shows those food items consumers should be taking in adequate quantity and those that should be taken with caution.
- It describes the function of each nutrient at a glance (energy giving or bodybuilding food groups).
- It serves as a graphic representation of those foods to be taken minimally (sugar, ice cream, and other sweets, the tip of food Guide Pyramid).
- It shows number of servings attached to each group (Food Guide Pyramid).
- It provides daily food Guide.

_____ of the food will destroy all pathogenic (disease causing) agents such as bacteria and virus.
Cooking

Cooking of the food will destroy all _____ agents such as bacteria and virus.
pathogenic

Cooking the food makes_____
the texture soft and easily digestible and utilizable in the body system

_____ leaves black smoke on the food
Smoking

Smoking leaves _____ smoke on the food
black

Smoking leaves black _____ on the food
smoke

_____ may lead to excess intake of fats in the body system.
Frying

Excessive intake of _____ may lead to cardiovascular disease or obesity.
fat

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Excessive intake of fat may lead to _____ disease or obesity.
cardiovascular

Excessive intake of fat may lead to cardiovascular disease or_____.
obesity

Prevention of food borne illness can be prevented by _____
keeping hot foods hot, cold foods cold and keeping hands, utensils, raw foodstuffs and kitchen clean

Washing of hands and all cooking utensils before cooking will definitely help_____
to prevent food borne diseases

_____ is a food borne illness due to consuming raw or under-cooked eggs, meats, and dairy products.
Salmonellosis

_____ is a food borne illness caused by eating under cooked or raw shell fish.
Hepatitis

_____ is the act of presenting the foods prepared in a plate.
Food presentation

An ideal food presentation should be tasty in the mouth.
True

_____ is an attempt to add colour or flavour to make the dish appealing and tasty.
Garnishing

_____ brings the food together.
Garnish

Garnishing is an attempt to add _____or flavour to make the dish appealing and tasty.
colour

Garnishing is an attempt to add colour or _____ to make the dish appealing and tasty.
flavour

Garnishing is an attempt to add colour or flavour to make the dish appealing and_____.
tasty

Garnish brings the _____together.

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food

The most popular complementary food in Nigeria is _____
corn/maize, guinea corn or millet

A good complementary foodstuffs should be a combination of _____ and grains.
legumes

A good complementary foodstuffs should be a combination of legumes and_____.
grains

A good complementary foodstuffs should be a combination of_____.
legumes and grains

_____ supplies lysine which grains lack.
Legume

Legume supplies _____ which grains lack.
lysine

Legume supplies lysine which _____lack.
grains

Basically there are _____ methods of assessing nutritional status.
four

The methods of assessing nutritional status include _____
anthropometric, biochemical, clinical and dietary survey techniques

_____ method measures weight, height, middle upper arm, chest circumferences and skin fold thickness.
Anthropometric Technique

BMI stands for_____
Body Mass Index

WHR stands for_____
waist-hip ratio

WHR stands for_____
Waist-height ratio

The _____ describes generalized body fatness for the adult.

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BMI

_____ measures central or abdominal obesity.
WHR

WHR measures _____or abdominal obesity.
central

WHR measures central or_____.
abdominal obesity

_____ method requires the taking of blood, urine, stools samples, finger nails, or hair to determine the protein, fat, or vitamins contents
Biochemical assessment

_____ is one of the reliable techniques in assessing nutritional status, but it requires highly trained personnel and expensive tools.
Biochemical assessment

_____ technique requires thorough examination from head to toe. The physical examination takes note of the texture of the hair, whether fluffy, thick, dark, reddish or brownish, (children).
Clinical assessment

_____ method is carved out by dietary recall or record
Dietary survey

_____ is the dissemination of nutritional knowledge on different types of foods, their values, and their usefulness to the body.
Nutrition information

_____ is imparting of nutritional knowledge to the clients in an attempt to improve their nutritional status.
Nutrition information

_____ can be defined as a positive change in dietary habits of an individual or that of a community.
Nutritional education

Nutrition information is a means to an end, not an end itself.
True

_____ is the outcome of effective information delivery.

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Nutrition education

_____ is all about seeing a positive change in nutritional behaviour of the client or the community

Nutrition education

_____ is the process by which the client (patient) is actively and effectively helped by the nutritionist or a dietician on one on one to appropriate the significant role that adequate nutrition plays in healthy and in sickness.

Nutritional counseling

Nutritional counseling serves _____ purposes.

two

The cardinal goal of nutrition education is_____

to create community awareness as well as to facilitate the need for healthful nutritional practices

_____ are practices directed by health experts to assist patients to improve their dietary intake.

Nutrition cares

The main aim of nutritional care is _____

to improve nutritional behaviour and the general health status of the patient

When diet is deficient in both protein and energy it is referred to as _____

Protein Energy Malnutrition (PEM)

_____ is defined as an umbrella word that covers a spectrum of nutritional deficiencies ranging from protein to energy due to undernutrition

PEM

_____ is due to lack of enough body building a food called protein that is required for strong muscles, blood and skin.

Kwashiorkor

The patterns of PEM are_____ , marasmus and marasmic-kwashiokor.

kwashiorkor

The patterns of PEM are kwashiorkor, _____and marasmic-kwashiokor.

marasmus

The patterns of PEM are kwashiorkor, marasmus and_____.

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marasmic-kwashiokor

_____ is the term given to those children who do not have enough food of any kind.
Marasmus

_____ are those that have both signs of kwashiorkor and marasmus.
Marasmickwashiokor children

_____ children are those that have both signs of kwashiorkor and marasmus.
Marasmickwashiokor

Marasmickwashiokor children are those that have both signs of _____and marasmus.
kwashiorkor

Marasmickwashiokor children are those that have both signs of kwashiorkor and_____.
marasmus

_____ is the most endocrine disease that is rapidly increasing in developing countries, especially in Nigeria.
Diabetes mellitus

Taber's cyclopedia medical Dictionary, defines _____as "a condition in which the patient has a higher blood pressure than judged to be normal".
hypertension

Hypertension can be grouped under _____headings
two

Hypertension can be grouped under two headings_____ and malignant
essential

Hypertension can be grouped under two headings: essential and _____
malignant

Hypertension can be grouped under two headings: _____
essential and malignant

_____ hypertension or high blood pressure is developed without apparent causes.
Essential

_____ is defined as a disorder of carbohydrate metabolism characterized by hyperglycemia (excess glucose in the blood) and glucosuria (sugar in the urine) that result as an inadequate production or utilization of insulin.

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Diabetes

IDDM stands for_____
Insulin-dependent diabetes mellitus

NIDDM stands for_____
Non-Insulin dependent mellitus

The _____ is now known as Type 1 diabetes which is attributed to either destruction or reduction in number of beta cells.
IDDM

ADA stands for_____
American Diabetes Association

_____ is the study of response of humans to food and food components
Nutrigenomics

_____ is the study of how individual genetic makeup interacts with diet, especially the effects of this interaction on a person's health.
Nutrigenomics

_____ is the branch of science concerned with the effect of heredity on diet and nutrition.
Nutrigenetics

_____ is a multidisciplinary science that combines information from genetics, nutrition, physiology, pathology, molecular biology, bioinformatics, bio-computation, sociology, ethics, and other disciplines.
Nutrigenomics or nutritional genomics

_____ describes the scientific approach that integrates nutritional science and genomics and also include the application of other high-throughput "omic" technologies such as transcriptomics, proteomics, and metabolomics to investigate the effects of nutrition on health.
Nutrigenomic

_____ is the new science that deals with the discovery and noting of all the sequences in the entire genome of a particular organism.
Genomics

The _____ can be defined as the complete set of genes inside a cell.
genome

_____ is the study of genome of organisms.

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Genomics

_____ are responsible for an endless number of tasks within the cell.
Proteins

The complete set of proteins in a cell can be referred to as its proteome and the study of protein structure and function and what every protein in the cell is doing is known as_____.
proteomics

The _____ refers to the complete set of low molecular weight compounds in a sample.
metabolome

_____ is an inborn error of metabolism which represents another classic example of nutrigenomics.
Phenylketonuria (PKU)

_____ are segments of DNA that contain the information for making a specific protein.
Genes

_____ are the variant forms of a gene at a particular location on a chromosome.
Alleles

SNP stands for_____
single nucleotide polymorphisms

The _____ is the genetic identity of an individual for a genetic site, determined from the combination of maternal and paternal alleles.
genotype

A _____ is an observable trait in an individual such as hair color, high blood sugar concentrations, or the presence of a disease'.
phenotype

A _____ is a group of alleles that are inherited together and, therefore, groups of geneticpolmorphisms are often inherited together.
haplotype

LDL stands for_____
low density lipoprotein

_____ is a fat-like substance that is found in the cells of the body.
Cholesterol

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_____ is carried in the blood stream in small packages called lipoproteins.
Cholesterol

Cholesterol is carried in the blood stream in small packages called_____.
lipoproteins

The cholesterol carried by HDL is sometimes called the_____
good cholesterol

The _____ removes cholesterol from the body.
liver

Higher levels of HDL cholesterol lower a person's chance for getting_____.
heart disease

_____ examines global patterns of metabolites present in the cellor in body fluids in response to specific dietary exposures.
Metabolomics (or metabonomics)

_____ is the study of modifications to the genome which are copied from one cell generation to the next but which do not involve changes to the primary sequence.
Epigenetics

_____ studies dynamic protein products and their interactions
Proteomics

_____ looks into gene expression patterns
Transcriptomics

_____ provides an overview of the complete set of genetic instructions provided by the DNA
Genomics

_____ genomic is a rapidly emerging science still in its beginning stages
Nutritional

The end product of fat digestion does not include ____
glycogen

Palm oil contains a lot of palmitic acid which is made up of _____
saturated fat

One of the major causes of childhood malnutrition in the developing countries is _____
religion/culture

Which of the following options is not a factor that affects food choices?
skin colour

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Genomics and proteomics have provided extensive information regarding the _____
genotype

Over the past 100 years, the dietary behaviour of Homo sapiens have changed tremendously due to agricultural and industrial revolutions
True

The high increase of domestic animals and refined grains may lead to higher increase of omega 6 than omega-3 fatty acids which may lead to increase in cardiovascular diseases and cancer.
True

Who prepared the first food composition tables?
Atwater, W.D

_____ known as father of nutrition demonstrated that the food that was eaten was like a fuel in the body and that the more a man worked,
Lavoisier, AL

_____was the first to conduct controlled clinical trials on the reason for fresh fruits and vegetables would cure scurvy.
Liquid

Examples of simple carbohydrates are_____
monosaccarides and diasassacharids

The Diasaccharides are three molecules of sugar, such as sucrose, maltose and lactose
False

These are all functions of glucose except_____
It helps in the formation of genetic materials

Digestion of carbohydrates_____
begins in the mouth and ends in the small intestine

Animal protein sources are usually referred to as _____ protein because it contains all the essential amino acids
Intermediate

Essential amino acids (Isoleucine, Leucine, Lysine, methionine, phenylalanine, threonine, tryptophan, and valine
True

Daily dietary requirement of protein for an adult is_____
Two gram per kilogram of body weight

Complementary proteins are the combinations of three important plant protein sources.
False

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Complementary proteins are the combinations of _____ important plant protein sources.
Two

Animal fats contain more of_____ fatty acids.
Poly-unsaturated

The digestion of fats begin in the _____
small intestine

Micro minerals or trace minerals are those that the body needs in large quantities more than 5 grams
False

These macro minerals are iron, zinc, copper, manganese, iodine, selenium.
False

Minerals build the following body parts except_____
Mucus

Sources of calcium are: Milk, snail, fish with bones, greens and legumes
True

Retinol is another name for_____
Vitamin A

Deficiency of vitamin A gives_____
Night blindness, leads to xerophthalmia

Vitamin C Deficiency leads to ____
Night blindness, leads to xerophthalmia

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True

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True

Who prepared the first food composition tables?
Atwater, W.D

_____ known as father of nutrition demonstrated that the food that was eaten was like a fuel in the body and that the more a man worked
Lavoisier, AL

Deficiency of riboflavin (Vitamin B2) leads to_____

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angular stomatitis

Nutrition is defined as the study of _____composition and its effects on the body.
Food

The main difference between our nutritional behaviours and that of our ancestor's is their consumption of_____ was very high due to eating different fruits and vegetables
Fiber

Over the past 100 years, the dietary behaviour of Homo sapiens have changed tremendously due to agricultural and_____ revolutions
Industrial

Higher increase of omega 6 than omega-3 fatty acids in the body may lead to increase in cardiovascular diseases and_____
Cancer

_____ prepared the first food composition tables is a graphic image, or object that represents a file, programme, web page or command
Atwater

_____ is known as the father of medicine
Hippocrates

_____ identified certain food substances that when absent could lead to certain diseases such as rickets and scurvy.
Hopkins

_____ known as father of nutrition demonstrated that the food that was eaten was like a fuel in the body.
Lavoisier

Who was the first to conduct controlled clinical trials on the reason for fresh fruits and vegetables would cure scurvy?
Liquid

The basic food which is the main regular constituent of a meal of a group of people, a tribe, a region or a community is known as_____ food
Staple

Simple and_____ carbohydrates are the two types of carbohydrates
Complex

The Disaccharides are two molecules of sugar, such as _____, maltose and lactose
Sucrose

In the mouth, the food is chewed and broken down into small pieces and mixed with _____which contains salivary amylase ptyalin
Saliva

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Energy requirement is _____during pregnancy, lactation and infancy
Increased

_____ is the most indispensable nutrient that supply essential and non-essential amino acid
Protein

_____ protein sources are usually referred to as complete protein because it contains all the essential amino acids
Animal

The _____essential amino acids are for adults.
Eight

For infants, the 9th essential amino acid is _____
Histidine

Daily dietary allowance of protein is_____ per kilogram of body weight
One gram

Deficiency disease of protein is called protein energy_____
Malnutrition

Rice and beans are examples of _____ protein
Complementary

Fat soluble vitamins are vitamins A,_____, E, and K
D

_____ serves as emulsifying agents for fat
Bile salts

Minerals can be classified into_____ and micro minerals
Macro

Sea foods, _____, onions, fruits are the sources of selenium
Meat

Vitamin _____is also known as Retinol
A

Calciferol is also known as Vitamin_____
D

Vitamin_____ deficiency results in night blindness, poor tooth formation and severe deficiency leads to xerophthalmia
A

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Vitamin _____ is an antioxidant
E

Vitamin _____influences absorption and metabolism of phosphorus and calcium.
D

Water is defined as tasteless, colourless, odourless and clear fluid that is made up of _____and oxygen
Hydrogen

Daily requirement of water is at least_____litres
2

Adequate intake of dietary _____can protect against Cancer, CVD, DM, Obesity
Fibre

Dietary_____ can be defined as components of the plant cell wall that resist digestion by secretions of the human eliminatory tract
Fiber

Human body stores glucose as_____
Glycogen

Plants store glucose as_____
Starch

Dietary_____ is the nutrient that increases fecal weight
Fibre

Foods are classified into_____ different ways
5

The 7 Food Groups: This 7 food groups plan was introduced during the war time
True

Basic Four Groups are Milk and milk products (milk, ice cream, cheese).
True

In the middle of food pyramid fruits and vegetables are encouraged to be consumed at least_____ to four servings every day.
2

Examples of_____ giving food group are yam, bread, cassava, beans
Energy

_____ are body building food
Proteins

Vitamins and _____ are protective

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Minerals

_____ and minerals are protective

Vitamins

Food _____ is an attempt to add colour or flavour to make the dish appealing and tasty.

Garnishing

_____is the addition of other foods or liquid to the infants foods while the mother is still breastfeeding

Complementary feeding

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