МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
ЧЕРНІГІВСЬКИЙ НАЦІОНАЛЬНИЙ ТЕХНОЛОГІЧНИЙ
УНІВЕРСИТЕТ

ТЕХНОЛОГІЯ ПРИГОТУВАННЯ ЇЖІ

Методичні вказівки до практичних занять та самостійної роботи з англійської мови професійного спрямування для студентів освітньо-кваліфікаційного рівня магістр

спеціальності 181 Харчові технології

Частина І

Обговорено і рекомендовано
на засіданні кафедри іноземних мов
професійного спрямування
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Технологія приготування їжі Методичні вказівки до практичних занять та самостійної роботи з англійської мови для студентів освітньо-кваліфікаційного рівня магістр спеціальності 181 Харчові технології. Ч. І. / Укл. : Бараненкова Н.А. – Чернігів, ЧНТУ. 2019. – 50 с.

Укладач: Бараненкова Наталія Анатоліївна,
кандидат філологічних наук, доцент,
доцент кафедри іноземних мов професійного спрямування

Відповідальна за випуск: Литвин С.В., завідуюча кафедрою
іноземних мов професійного спрямування,
кандидат педагогічних наук, доцент

Рецензент: Гагіна Н.В.,
кандидат педагогічних наук, доцент
доцент кафедри іноземних мов професійного спрямування

ЗМІСТ

ВСТУП

Відповідно до Програми викладання англійської мови для професійного спілкування (2010 р.) вивчення іноземної мови повинно розвивати мовну компетенцію студентів, а також стратегії, необхідні для ефективної участі в процесі навчання та в ситуаціях професійного спілкування.

Методичні вказівки орієнтовані на студентів освітньо-кваліфікаційного рівня магістр спеціальності 181 Харчові технології денної форми навчання та мають на меті формування навичок англомовного професійного спілкування.

Методичні вказівки є складовою частиною навчально-методичного комплексу з дисципліни «Іноземна (англійська) мова за професійним спрямуванням» і, як допоміжний засіб навчання, забезпечують реалізацію всіх цілей навчання іноземних мов: розвиток навичок розуміння й аналізу оригінальних текстів на професійну тематику, подальше збагачення словникового запасу студентів сучасною англійською термінологічною лексикою, вдосконалення навичок усного та писемного мовлення, перекладу та розуміння оригінальних науково-популярних текстів з професійної тематики.

Навчально-методичне видання базується на лексичному матеріалі, що охоплює термінологію, пов’язану з майбутньою професійною діяльністю студентів. Комунікативно спрямовані вправи розділів посібника побудовані на автентичних матеріалах, що, в цілому, сприятиме ефективному оволодінню професійно зорієнтованою англійською мовою і формуванню навичок самостійної роботи студентів.

Завдання для самостійної роботи містять оригінальні тексти, що відображають новітні тенденції у розвитку харчової промисловості.

UNIT 1. COOKING FOODS

You can prepare better food if you know what goes on in the food you are preparing and why things happen as they do. Foods change physically and chemically during cooking. If you know their composition and structure you can control these changes and have superior products from your efforts. Protein, fats, and carbohydrates are your major allies (and may be problems) in cooking. Protein in egg white, for example, serves as a stabilizer for foams and makes possible such products as meringues, angelfood cakes, soufflés, and so on. Proteins help emulsify, thicken, and bind together other food materials.

Fats give flavour and richness to foods, in which they occur naturally, as in milk, eggs, and meat, and the foods to which they are added, as in vegetables, baked products, and salad dressings. They are used to fry or to cook foods and to add tenderness to breads, cakes and pastry.

Carbohydrates have a part in thickening, tenderizing, or sweeting cakes, breads, candies, ice cream, and other foods.

Each group of foods has its own chemical and physical properties that determine the best method of preparing or cooking it. Eggs are highly useful in cooking. They give colour and flavour and hold other ingredients together.

The proteins in the white and yolk coagulate on heating and thicken the liquids they are mixed with, as in custards. The proteins can encase air, and so provide leavening power, or lightness, as in cakes. Eggs bind ingredients together, as liquids in mayonnaise and solids in croquettes, as in cream puffs, and popovers.

Milk and milk products are available in many forms. Fresh fluid milk is almost always pasteurized. It may be homogenized — treated under pressure to reduce the size and increase the number of tiny fat globules so they will not rise to the top as cream. Evaporated, dry, frozen, condensed and fermented milk (buttermilk and yoghurt) are used in the preparation of food. Low cooking temperatures are recommended when milk is a main ingredient of recipe. Long cooking at high temperatures coagulates some protein, causes an off-flavour in the milk, and caramelizes the lactose that is, it decomposes or breaks it down into simpler compounds. The milk gets a brown colour. Milk soups and sauces therefore are cooked usually in a double boiler, and custards are cooked in a baking dish set in a pan of hot water. You can use most forms of milk in place of fresh, whole milk in a recipe. Exceptions are buttermilk and yoghurt, which might give an unwanted flavour, and sweetened condensed milk, which contains such a high percentage of added sugar that it is used almost entirely in making candy, cookies, and desserts. Homogenized milk may be used interchangeably with non- homogenized milk in a number of dishes. Cornstarch puddings made with homogenized milk are more granular. Homogenized milk tends to curdle more readily than nonhomogenized milk in soups, gravies, scalloped potatoes, cooked cereals, and custards. Evaporated skim milk, one of the newer forms of milk, may be diluted with an equal amount of water and used like fresh skim milk. Cereal products are cooked to absorb water, soften the texture, modify the starch and protein, and develop full flavour.

Proper preparation depends on an understanding of type and form of the product to be cooked. Some are relatively unprocessed whole kernels. Others are processed so that they require little or no cooking. Modern packaged whole-kernel cereals, such as rice, need no washing before use. Indeed washing the riched rice removes some of nutrients. When you boil rice, you should use the smallest possible amount of water so that none is left over when the rice is tender. Proportions of 1 cup of rice and 2 cups of boiling water are used for regular white rice.

Fruits and vegetables are made up chiefly of cellulose, hemicellulose, and peptic substances that give them texture and form. Starch, sugar, acids, minerals, and vitamins are present in varying amounts. Many changes take place when a fruit or vegetable is cooked. The flesh is softened by alteration of the cell structure. In starchy vegetables, like potatoes, the starch gelatinizes during cooking; pectins, proteins and hemieollulose also change. In frying potatoes and other vegetables, some of the sugar is caramelized. Colouring pigments also undergo chemical change when heat is applied.

Fruits tend to keep their shape better in a sugar syrup because the syrup attracts water from cells through osmotic pressure and leaves a more dehydrated cell structure. Sugar is absorbed into the fruit only after the tissues are softened by cooking. Many fruits, like apples, plums, peaches, and apricots, can be cooked directly in a sugar syrup. For making purees, the fruit is cooked in water to soften it, and then the sugar is added to the fruit puree.

Vegetables are more vulnerable to mistreatment in cooking than many other foods. For the best in colour, texture, and flavour, one should cook all vegetables the shortest time possible because they are less palatable when they are overcooked. The most common method of cooking fresh or frozen vegetables is in a small amount of water in a tightly covered saucepan. For many leafy vegetables, like spinach and shredded cabbage, the cooking time is less than 5 minutes.

Other methods of cooking vegetables include baking, braising, steaming, and frying.

Baking whole in the skin is commonly used for potatoes, sweet potatoes, and squash. Carrots, onions, turnips, young beets, parsnips, and cucumbers can also be baked successfully in covered casserole. The colour of fresh and frozen broccoli is similar when cooked by microwave and by the conventional method of boiling on top of the range. Frozen vegetables usually require a shorter cooking time than do fresh ones, because they have been blanched before freezing.

Canned vegetables are quick and easy to prepare for serving because they are already cooked. To serve canned vegetables with the most flavour and food value, the liquid in which they are packed should not be discarded.

Active Vocabulary

effort	зусилля, спроба
angel food	бісквіт
ally	сполучник; з'єднувач
foam	піна
meringue	меренга
emulsify	робити емульсію
occur	траплятися, відбуватися
salad dressing	приправа до салату
yolk	жовток
tenderness	ніжність
pastry	кондитерські вироби; вироби з тіста
leaven	дріжджі, закваска
leavening power	здатність підніматися (про тісто)
coagulate	згущати(ся), згортати(ся)
custard	солодкий крем
buttermilk	сколотини, маслянка
puff	слойка
gravy	підлива, соус
homogenized milk	гомогенізоване молоко
cornstarch	кукурудзяний крохмаль
evaporated skim milk	сухе знежирене молоко
kernel	серцевина, ядро, зерно
peptic	травний, пепсиновий
starchy vegetables	овочі, які містять крохмаль
vulnerable	уразливий
braising	тушкування
casserole	каструля
nutrient	поживна речовина
blanch	бланшувати, обварювати
canned vegetables	консервовані овочі
discard	викидати

exposure	піддавання зовнішньому впливу
osmotic	осмотичний (osmos - поштовх, тиск. Просочування рідких речовин крізь напівпроникні тваринні або рослинні перетинки, тканини. Явище осмосу грає велику роль в обміні поживними речовинами в організмі.

Task 1. Transcribe and pronounce correctly the following words:

protein, carbohydrates, palatable, tenderness, leavening power, gravy, homogenized milk, evaporated skim milk, braising, nutrient.

Task 2. Match the word or words with the definition.

1. salad dressing	a. tinned greens
2. leaven	b. meal or powder from ground wheat
3. canned vegetables	c. spices for salad
4. cream	d. sweet food served after the main part of the meal
5. egg	e. sweet sticky yellowish fluid made by bees from nectar
6. flour	f. substance causing dough to ferment and rise
7. dessert	g. a body produced by females of birds
8. honey	h. a thick yellow-white liquid that rises to the top of the milk

Task 3. Fill in the gaps using the words in the box.

pastry, tenderness, exposure, curdle, milk, coagulation, protein, cooked, starches

1. In the preparation of _____, fat is worked into flour and water added in amounts sufficient to hold all together.
2. _____ results from separation of most of the flour particles by fat.
3. When ordinary egg white is heated, _____ of the protein takes place because the egg white has the ions necessary to precipitate thee denatured protein.
4. The thickening power of eggs is due to the case with which the _____ coagulates.
5. It has been definitely proved that raw and _____ _____ are equally well digested.
6. When _____ is heated to a very high temperature, the milk sugar is caramelized and acids formed in the decomposition start the coagulation of the protein.
7. Milk which is not perfectly fresh may _____ when it is scalded.
8. Raw apples and other light-coloured fruits often darken from _____ to air when they are cut.

Task 4. Answer the questions.

1. When can you control physical and chemical changes in foods during cooking?
2. What are major allies in cooking?
3. What do proteins help to do during cooking?
4. What do fats give to foods?
5. What are carbohydrates functions in foods?
6. What occurs in the milk during long cooking?
7. What kinds of milk may be used in place of fresh whole milk in recipe?
8. What changes take place when a fruit or vegetable is cooked?
9. Why do frozen vegetables require a shorter cooking time?
10. Why are canned vegetables quick and easy to prepare for serving?

Task 5. Choose the correct form in bold.

1. Fats **is/are** used to fry or to cook foods and to add tenderness to breads, cakes and pastry.
2. Each group of foods has its properties that determine the best method of **cook/cooking** it.
3. Eggs **is/are** widely used in cooking.
4. Fresh fluid milk **are/is** almost always pasteurized.

5. Low cooking temperatures **were/are** recommended when milk is a main ingredients of recipe.
6. Sugar is used almost entirely in **make/making** candy, cookies and desserts.
7. Proper preparation depends on an **understand/understanding** of type and form of the product to be cooked.
8. Many changes take place when a fruit or vegetable **are/is** cooked.
9. Carrots, onions, turnips, young beets, parsnips and cucumbers can also be **baked/baking** successfully in covered casserole.
10. Canned vegetables are quick and easy **preparing/to prepare** for serving.

Task 6. Translate into English.

1. Важливою функцією жирів у приготуванні їжі є збільшення м'якості продукту, до якого вони додаються.
2. Також жир впливає на смак їжі, тому смажена цибуля на смак відрізняється від цибулі, звареної у воді.
3. У підігрітому молоці білка і кальцію менше ніж у не підігрітому.
4. Овочі змінюють свій колір залежно від тривалості варіння.
5. Якщо вода, в якій варяться овочі, містить соду, то вітамін С руйнуватиметься.
6. Добрий бульйон виходить із м'яса і кісток.
7. Якщо м'ясо готувати при низькій температурі тривалий час, то воно буде соковитим і м'яким.
8. Для приготування їжі, основним компонентом якої є молоко, рекомендується низька температура.
9. Червоні овочі, такі як буряк, червона капуста, зберігають свій колір, якщо у воду, в якій вони варяться, додати небагато оцту або будь-якої іншої кислоти.

Task 7. Read the text and mark these sentences true (T) or false (F).

Don't spend lots of money on top quality cooking; just make sure you like the place where you have it. A new report says that enjoyment of a meal doesn't depend on what you eat, but where you eat it. A new report says that enjoyment of meal doesn't depend on what you eat, but where you eat it. Researchers prepared the same meal in ten different locations and asked the people eating it to give it marks out of ten for the taste, texture and appearance of the food. When they served "chicken a la king" in a residential home for the elderly, it got low marks. However, when they served it to customers in a four-star restaurant, the reaction was very different. The customers said it tasted delicious.

The results show that in many cases the location is actually much more important than the food; said Professor John Edwards of Bournemouth University. Edwards and his team took great care to make sure that all meals would be as similar as possible. They used exactly the same kind of chicken, they stored the dishes in the same kind of plastic bags and served them all with the same type of rice. The meat got the highest marks in every category – taste, texture, appearance – at the restaurant. Interestingly, bottom marks went to the dish when they served it in an army training camp. As one of the soldiers said, "It tastes awful and smells disgusting!"

1. Researches asked the people to give it marks out of ten for the taste.
2. People in the residential home for the elderly liked the food.
3. Customers in the restaurant liked the food.
4. The place is always more important than the food.
5. The food was exactly the same in all the different places.
6. The food got the highest marks in the army training camp.

UNIT 2. VEGETABLE COOKERY

The composition of vegetables varies greatly. Some are good sources of proteins, others are largely starch. Unlike most of our foods, vegetables contain many valuable minerals and vitamins, along with considerable quantities of cellulose While the vegetarian is interested chiefly in the protein content of this vegetables and the overweight person in their carbohydrate content, the average person values vegetables for their minerals, vitamins and cellulose. These constituents must, there fore, be our first consideration in vegetable cookery. While it is well known that the palatability (including flavour, texture, and colour) of foods does not effect digestion, it is equally well known that the palatability does effect our selection of food. In the cookery of vegetables, then, we must consider both the nutritive value and the palatability of the cooked vegetable.

General effect of cooking on vegetables. Why do we cook vegetables? To answer that question let us first see what happens during the cookery process. The flavour is altered, sometimes it is lessened, other times it is increased, but in both cases it is usually changed in character as well. The colour also may be altered. The constituents which give flavour and colour to vegetables are unstable compounds sensitive to changes in acidity and heat. Many of the flavouring substances decompose, and many escape with steam as volatile products during the cookery process. As the hemicellulose is hydrolyzed, the texture is softened. Leafy vegetables lose moisture from the plant cells, shrink, and then become softer. The starch granules of all vegetables swell. Some of the starch may be hydrolyzed, some may be dissolved out. Some of the soluble proteins, dissolve out and coagulate, others coagulate in vegetable. Some of the soluble minerals dissolve out, others are held within the vegetable by coagulated protein cellular walls. Vitamin C is partly destroyed during the cooking process and a large amount dissolved out. Vitamin B complex is made up of several vitamins of which now, called vitamin B (B,) and G (B_2), are differentiated. Both are soluble and therefore are dissolved in cooking of vegetables in proportion to the amount of water and the length of cooking. One vitamin B (B,) is largely destroyed by heat. Vitamin A will be effected by any cooking process.

There are various methods of cooking vegetables. They may be classified according to the medium in which the vegetable is cooked, in boiling water, in steam (steamer, pressure cooker, waterless cooker, etc), in hot fat (fry), in hot air (bake).

Carbohydrate and protein. Little need be said concerning the loss of carbohydrate and protein in vegetable cookery. The longer the cooking the greater the losses, but these are slight in any case and represent but a small percentage of the daily requirement.

Celluloses. Although the celluloses of vegetables have no fuel value because they are not digested by man, they represent a valuable factor in nutrition.

As roughage, they help to prevent constipation. For those who are overweight, they act as a filler, giving a feeling of satiation without the possibility of adding weight. The amount of roughage desirable varies with the individual. Too much is as harmful as too little, but the free use of vegetables as a source of roughage is unquestionably safe for every normal person. There is no method of cooking which causes loss of roughage. The greatest loss is encountered in the removal of skins, etc., in preparing the vegetables for cooking. If vegetables are cooked a considerable time, the cellulose which is softened to a greater extent is not too irritating to a sensitive digestive tract.

Vitamins. The popular demand for vitamins is encouraging to nutrition experts. They have become talking points for food salesmen. Much good has been accomplished, but caution must be observed in the evaluation of the popular statements concerning vitamins.

As already stated, the loss of vitamin A is insignificant. Vitamin B complex is partly destroyed and may be leached out; so that the loss may be considerable unless the cooking water is utilized.

Vitamin C, present in more or less amounts in all vegetables, is the most easily destroyed of the three important vitamins, especially in the presence of heat and oxygen. As there is air dissolved in the plant juices, it follows that during the cooking of vegetables considerable loss of vitamin C will take place. Tests show losses as high as 95 per cent. If the original amount of vitamin C is low,

the amount remaining in the cooked vegetables may be insignificant with those vegetables which contain a large amount of vitamin C in the raw state, the amount left in the cooked product may be of great nutritional value. Certain cooked fruits, notably pineapples and tomatoes, contain nearly as much vitamin C as the raw fruit. In the presence of alkali, however, the loss of vitamin C on heating is complete. Those vegetables which are cooked fop a time in slightly alkaline tap water, or those cooked in water to which "a pinch of soda" is added, will be without vitamin C. Like the vitamin B complex, the loss of vitamin C is increased by its solubility unless the cooking water is utilized. While it might appear logical to conclude that the loss of vitamins during vegetable cooker is so great that it would be better to disregard cooked vegetables as a source of vitamins, this idea is erroneous. It has been found that there may be more vitamin C in cooking water from spinach than in raw carrots.

Minerals. Vegetables are one of our best sources of minerals. Efforts should therefore be made to conserve these constituents in the cookery processes, and, where loss is inevitable, the facts should be well understood. It has been shown that some vegetables cooked in very hard water contain even more calcium than the raw vegetables.

Cooking in hot air (baking) or in hot fat (frying) does not affect the mineral content. The minerals are lost only through their solubility in water. Unfortunately not all vegetables can be cooked in hot air or fat.

All authorities agree that the greatest loss of minerals results when vegetables are cooked in water for a long time, the larger the amount of water the greater the loss. Authorities also agree that there is the least loss of minerals when vegetables are cooked in a steamer or pressure cooker, the losses in the latter being usually somewhat greater than that in a steamer. As the flavour and appearance of vegetables cooked in the pressure cooker are not usually so pleasing as those cooked in a steamer, the use of the pressure cooker for vegetables is debatable. In both methods the vegetables are in contact with only a small amount of water at any time and this explains the slight loss of minerals. The loss in minerals will be nil in all methods of cooking vegetables if the liquid in which the vegetables is cooked is utilized in one way or another. Vegetable water may be used in making soups, cream sauces, meat loaf, gravies, and innumerable other dishes. It is also possible that the water in which the vegetables are cooked may be completely evaporated off. Certain vegetables are more palatable if cooked in a comparatively large amount of water. This is true of such vegetables as cabbage, brussels sprouts, and turnips.

The addition of salt to the cooking water of vegetables is a common practice as it improves the flavour of the cooked product. Recently it has been shown that its presence does not in any way affect the loss of mineral element at least, calcium.

Palatability. Palatability is greatly affected by cookery processes. People select food because of its nutritive value, its palatability, that is, the texture, flavour, and colour. By texture is meant softness or tenderness, mealiness, and so on.

During the cooking of all vegetables, there are changes in texture which are due to the same general causes. The protein coagulates. There is a partial gelatinization of starch, softening of cellulose and, with the solubility of the pectic substances which hold the cellulose together, a general disintegration of the plant tissue. Only those vegetables which contain and retain enough moisture in which to cook can be cooked in hot air or hot fat. A potato baked in an oven cooks in its own water content. Cabbage and other vegetables containing a large amount of water cannot be cooked in the oven because they evaporate off their water too rapidly. When vegetables are cooked in either steam or water, the texture is affected primarily by the length of time cooking.

Flavour. Flavour is greatly affected by method of cooking. In general, fried and baked vegetables taste more like the raw products than those cooked in water, as many constituents which are leached by water or boiled out with steam are held within vegetable when it is baked or fried.

Colour. The colour of cooked vegetables is greatly affected by the mode of preparation. It is sufficient to say at this point that retention of the colour of green vegetables is favoured by cooking in as lightly alkaline medium. The discolouration of potatoes is quite different. Every housewife

knows that old potatoes become dark during the cooking process. This blackening is due primarily to the hydrolysis of proteins of the potato during storage.

As the hydrolytic products are soluble in cold water, the best remedy is to soak the pared potatoes in cold water an hour or more before cooking. As this treatment greatly reduces the mineral content, it is only recommended for the old potatoes which become unsightly when cooked.

Storage. The keeping of vegetables in an average home is only for a short time. The changes which take place in vegetables in this time are due to drying out or to natural chemical changes taking place in the vegetables themselves. Drying out can be controlled by keeping the vegetable cool and in the case of leafy vegetables covered. The chemical changes are due to the fact that many of the life processes of the vegetables continue, as for example the change of sugar in corn and de-struct ion of sugar in peas. These changes become less rapid when the vegetables are kept cold. The chemical changes in winter vegetables are less undesirable. The starch of squash changes to sugar during storage and parsnips are sweet only after they have remained in the frozen ground. The sugar of carrots hydrolyzes to dextrose.

Active Vocabulary

alkali	луг
alter	змінювати (ся)
cellular wall	стінка клітини
considerable	значний
constituent	складова частина
cookery	готування
daily requirement	денна потреба
decompose	розкладатися, розчинятися
digestive tract	травний тракт
hard water	жорстка вода
increase	зростати, збільшувати (ся)
lessen	зменшувати (ся)
maleness	борошнистість
medium	середовище
moisture	вологість
nutritive value	харчова цінність
overweight	надмірна вага
palatability	смакові якості, смак
pared potatoes	очищена картопля
pinch of coda	дрібка соди
pressure cooker	варильний автоклав
quantity	кількість
raw products	сировинні продукти
roughage	груба їжа
satiation	насичення, насиченість
shrink	усихання
steamer	пароварка
texture	структура, тканина
treatment	обробка
volatile	летючий, той, що швидко випаровується
waterless cooker	посуд для готування без води

Task 1. Transcribe and pronounce correctly the following words.

valuable, quantity, overweight, constituent, alter, moisture, hydrolyzed, pressure cooker, alkali, texture

Task 2. Match the word or words with the definition.

1. palatability	a. small amounts of water in or on something
2. roughage	b. not cooked foods
3. moisture	c. kitchen equipment
4. raw products	d. art or skill of preparing food
5. pressure cooker	e. quite pleasant taste of food
7. cookery	f. drying out
8. solvent	g. a substance than is used to dissolve another substance
9. shrink	h. a substance in some foods that helps your bowels to work

Task 3. Fill in the gaps using the words in the box.

evaporate, digestible, raw, cooking, acidity, nutritive, value, hydrolysis, length

1. We prefer the changed flavour, even though it means less _____.
2. The raw potato starch is less _____ than the cooked potato starch.
3. Some cooked fruits contain nearly as much vitamin C as the _____ fruit.
4. The less of minerals depends upon the water which leaves the vegetables during the _____ process.
5. Vegetables containing a large a mount of water cannot be cooked in the oven because they _____ off their water too rapidly.
6. The preservation of the natural flavour of vegetables may be controlled by the _____ of the cookery period.
7. The blackening is due primarily to the _____ of proteins of the potatoes.
8. It varies with the size and age of the vegetable and the _____ of water.

Task 4. Answer the questions:

1. What is the composition of vegetables?
2. What happens during the cooking process?
3. In what way do we classify methods of cooking vegetables ?
4. What is the function of the celluloses of vegetables in nutrition?
5. What vitamin is the most easily destroyed in the presence of heat and oxygen?
6. What is the best source of minerals?
7. When does the greatest loss of minerals in vegetables result?
8. Is palatability greatly affected by cookery processes?
9. What affects the color of cooked vegetables?
10. What changes take place in vegetables during storage?

Task 5. Choose the correct form in bold.

1. The vegetarian is interested chief/chiefly in the protein content of the vegetables.
2. It is equal/equally well known that the palatability does effect our selection of food.
3. The flavour is usual/usually changed in character as well.
4. Vitamin C is partly/part destroyed during the cooking process.
5. Vitamin B1 is large/largely destroyed by heat.
6. Vitamin A occurs wide/widely in foods of animal origin.
7. The water in which the vegetables are cooked may be complete/completely evaporated off.
8. Certain vegetables are more palatable if cooked in a comparative/comparatively large amount of water.

Task 6. Translate into English.

1. Смак овочів під час варіння змінюється: інколи він стає кращим, інколи – гіршим.
2. Овочі містять велику кількість мінеральних солей.
3. Вміст мінеральних солей в овочах не змінюється під час їх запікання або смаження.
4. Додавання невеликої кількості солі у воду, в якій варяться овочі, покращує їх смак.
5. Зменшення поживної цінності овочів відбувається через руйнування вітамінів і розчинення мінеральних солей.
6. Збереження природного смаку овочів і запобігання розвитку неприємного смаку можна контролювати тривалістю їх готування.
7. На колір овочів під час варіння впливає тривалість їх приготування.
8. Для приготування смачних і приємних на вигляд страв з овочів, варто обирати свіжі, міцні овочі.
9. Овочі слід зберігати в прохолодному місці протягом нетривалого часу.
10. Для того щоб картопля не темніла, перед приготуванням її слід потримати годину в холодній воді.

Task 7. Read the text and mark these sentences true (T) or false (F).

VITAMIN A

Among vitamins soluble in fats vitamin A is of great importance. It is necessary for normal growth of epithelial tissues. This vitamin is involved in the work of the enzymes in the formation of the visual pigment rhodopsin, through which we can see in the twilight. Vitamin A is called the "vitamin of growth", it is simply necessary for the children.

Lack of vitamin leads to depression and poor concentration, disturbances of visual function and reduce the stability of epithelial tissues. In general, vitamin A is found in animal products, especially in liver, egg yolk, butter, and dairy products.

Carotene, called provitamin A is found in all green, yellow and orange fruits and vegetables. A lot of carotene is absorbed along with fats. Therefore vegetables that contain it must be used in a salad with vegetable oil. The daily need of vitamin A is from 0,9 to 2,7 milligrams or 25 milligrams of carotene. This may be equal to 1 liter of milk, 1 cup of carrot juice, three tomatoes or 150 grams of spinach.

1. Vitamin A is water soluble.
2. This vitamin is necessary for vision.
3. It occurs only in vegetables.
4. Carotene is provitamin A .
5. Carotene is found only in foods of animal origin.
6. The daily requirement of vitamin A is 2,7 milligrams.

UNIT 3. CEREAL GRAINS

The cereal grains are the edible seeds products by certain plants of the grass family. They provide 20 to 80 per cent of the food energy in different countries of the world.

Cereal grains have many natural advantages as foods. They are nutritious. The grains are not bulky. They can be stored for long periods, are transformed cheaply long distances. They are readily processed to give highly refined raw foods.

Four general groups of foods are prepared from the cereal grains and these must be kept in mind by the grower and processor when quality is considered.

Baked products made from flour or meal include pan breads, loaf breads, pastries, pancakes and flat breads.

Milled grain products, made by removing the bran and usually the germ, include white rice, farina, wheat flour, corn-meal, hominy, corn grits, pearled barley, semolina for making macaroni products, prepared breakfast cereals, and soup, gravy and other thickenings.

Whole-grain products include rolled oats, brown rice, popcorn, shredded and puffed grain, breakfast foods, and home-ground meals made from wheat, corn, sorghum, and millet.

Beverages are made from fermented grain products (distilled and undistilled) and from boiled roasted grains.

Preference for a cereal depends on the form and flavour of the food made from it, its amount of nourishment and contribution to health, cost, its general availability, and the food habits of a people.

All cereal grains have high energy value, mainly from the starch fraction but also from the protein and fat. The mineral and vitamin composition varies considerably among the cereals and among varieties within species. It reflects the plates where they are grown, the conditions of storage, and the portion of the kernel that is utilized.

Cereal foods should be eaten and are eaten with meat, fish, vegetables, milk and other foods. The food value of cereals depends on their chemical composition and the availability of the constituents for use by the human body.

Quality standards in cereal grains have to do with the nature of the raw product, the ease of processing wholesome food from it, and the intended use.

Each class or subclass of grain is divided into several grades, which are based primarily on the minimum allowable weight per bushel and maximum limits of moisture, mixtures of various kinds, and damaged kernels.

Wheat is divided into seven market classes according to the botanical type, the area where it is grown or the major use. They are hard red spring (the usual protein content is 12-14 per cent) and hard red winter (9-13 per cent protein), the bread wheat: durum (about 11-14 per cent protein) for macaroni products; soft red winter (10 per cent protein), the pastry wheat: red durum used as food, and mixed wheat the use of which depends on its composition.

Corn is classed as yellow, white and mixed.

There are special grades for flint corn. Both yellow and white corn are utilized for cornmeal, white corn is favoured for hominy and breakfast foods.

Starch, syrup, sugar and oil made from the different classes are similar in quality. Popcorn is graded on the basis of popping expansion, uniformity, and degree of maturity. Popcorn to be caramelized should pop into smooth mushroom- shaped grain in contrast to the large "butterfly" type most popular for buttering. Yellow popcorn has become more popular than white.

Barley classes distinguish among eastern and western grown sixrowed barley. Subclasses for malting barley and special grades for two-rowed barley further specify market samples for uses requiring special qualities. Oats are classified by colour of the hull as white, red, gray, black, and mixed oats.

White oats are preferred for milling, but yellow and red oats also are used. Rice is graded as rough rice, brown or cargo, and milled rice (bran layers are removed).

There are special grades for unpolished milled rice sometimes called undermilled rice, parboiled milled rice, which was processed before milling by soaking, steaming and drying: and coated milled rice, which receives a coating of glucose and tale.

Grain quality has two general meanings — physical quality, which pertains to cleanliness and freedom from foreign seeds and trash, and processing quality, which means suitability for the use for which the grain is intended.

Physical quality sometimes partly describes the processing quality. Certain market classes are more suitable for the production of consumer food than others. Grain that has been stored for many years, or for a shorter period under poor conditions may be less suitable for food. The fat of such grain begins to break up into simpler compounds, fatty acids and glycerol.

Flour is made from the endosperm, the central part of the wheat kernel, 70 to 75 pounds of flour are commonly obtained from 1000 pounds of wheat. Varieties of wheat may differ markedly in millability. The white wheats as a group are perhaps the easiest to mill, and they produce a high yield of flour. White flour may be divided into two major classes — bread flour and pastry flour. Bread flour is used to make rolls and Vienna bread, as well as the common sliced, wrapped white bread. Pastry flour is used for cakes, cookies, piecrusts, doughnuts, crackers and biscuits.

Pastry flours have about 6 per cent to 9 per cent of protein. They are made from softer wheats compared to those used for bread flours. They generally are made from soft wheats in order to obtain the low-protein type necessary to make pastries and rich cakes.

The strength of soft-wheat flours may be measured by amount of water they absorb in a slightly acid, or weakly alkaline solution. Strength appears to be proportional to the amount absorbed. Quality of pastry flours may be judged by the feel of a flour-water dough. A good pastry flour will be short one whose dough will stretch relatively little but breaks Instead. Good quality in a cookie flour is measured by (and is directly proportional to) the diameter of the cookies produced.

Semolina, a granular middlings or meal, is used to make spaghetti and macaroni products and noodles.

It is made from a very hard wheat (durum) which is suitable mainly for this purpose. Macaroni quality is measured by mixing and kneading the semolina with water forming the shape of a typical macaroni or a flat thin sheet, and drying it slowly. The best semolinas produce a translucent, golden, or amber product. The yellow colour is not known to be important nutritionally, however.

Quality in rice is evaluated according to kernel shape and uniformity, milling loss (broken kernels), and cooking characteristics. Cooking quality is judged by the water uptake, volume of cooked rice, starch and other solids in the residual liquid, degree of cohesiveness, cooking time, colour, flavour and aroma.

Professors of rice prefer different textures for different products. Those two package quick-cook rice and who produce canned products prefer the fluffy, dry whole-grain cooking types. Manufacturers of breakfast and baby foods prefer the firm, or chewy cooking types, in which the grains tend to stick together. Parboiled rice is produced by soaking rough rice, steaming or cooking it, and drying and hulling and milling.

For this rice, vitamin and mineral content are factors of quality, because 70 to 90 per cent of such nutrients in the rough rice are retained in the parboiled rice after milling.

Corn is processed by the wet milling process to make oil, starch, and syrup for food purposes. The most important quality characteristics of grain are full maturity, freedom from type of mold, spoilage, and animal or insect contamination, and if dried artificially, drying at temperatures below 135°. Yellow corn contains appreciable amount of vitamin A. White corn contains a trace.

High quality oats are matured, unweathered, free from foreign material and other grains, and of high weight per bushel. Manufacturers of rolled oats believe that grain high in protein and low in fat makes the best product. Rolled oats with a high fat content are chunky, become rancid easily, and produce party water porridge when cooked. Rye flour, generally mixed with relatively large amounts of wheat flour, is used to make specially bread. The starch liquefying enzyme must be present in the proper amount especially when relatively rye bread is baked.

Too little an amount results in a dry, brittle crumb and large hollow spaces. It is determined by measuring the thickness or viscosity of dot flour water pastes. Small scale bread-baking tests may be used to evaluate the flour. The bread is scored for general appearance, size, and crust colour of the loaf and grain and texture of the crumb.

Active Vocabulary

barley	ячмінь
batter	збите тісто (без дріжджів), тістечко
beverage	напій
biscuit	(сухе) печиво
bran	висівки
buck wheat	гречка
cake	кекс, торт
cereals	хлібні злаки
cookies	домашнє печиво, булочка
cornflakes	кукурудзяні пластівці
cracker	крекер
crumb of bread	крихта хліба
crust of bread	шкуринка (скоринка) хліба
dough	дріжджове тісто
edible	їстівний, придатний для їжі
flavour	смак
flour	борошно
gluten	клейковина
gravy	підлива
grow	вирощувати
hull, husk	шкарлупа, лушпайка, шкірка
kernel	зерно
maize (corn AE)	кукурудза
middlings	крупка; дунст; пшенична мучка
millet	просо, пшоно
mix	зміщувати
moisture	вологість
nutritious	поживний
oats	овес
paste	паста, здобне тісто, пастила, клейстер
pastry	кондитерські вироби
pearl barley	перлова крупа
process (n, v)	переробка, переробляти
rice	рис
roll	батон, булочка
rye	жито
store	зберігати
unweathered	погодостійкий, що не постраждав від атмосферної дії
Vienna bread	віденська булочка
viscosity	в’язкість
wheat	пшениця

Task 1. Match the word with its definition.

a) beverage	1. useful in nutrition
b) cereal grains	2. maize
c) nutritious	3. prepared in the oven
d) raw food	4. a substance made of endosperm, the central part of the wheat kernel
e) baked (grain products)	5. drink made of fermented grain products
f) milled (grain products)	6. not processed
g) flour	7. prepared by milling
h) corn	8. edible seeds produced by certain plants of the grass family

Task 2. Fill in the gaps using the words in the box.

kernel; white; oats; rice; hull; barley; corn; grains; wheat

1. Cereals include the small _____ , rice, wheat, corn or maize, and the various grain sorghums.
2. _____ supplies flour for bread, macaroni, crackers, and other foods.
3. _____ is classed as yellow, white and mixed.
4. _____ resembles wheat in appearance but has a longer and more slender head.
5. _____ are classified by colour of the _____ as white, red, black and mixed oats.
6. _____ oats are preferred for milling, but yellow and red oats also are used.
7. Quality in rice is evaluated according to _____ shape and uniformity, milling, less broken kernels and cooking characteristics.
8. _____ fresh from the combine harvester usually is high in moisture and requires prompt and careful drying.

Task 3. Answer the questions.

1. What are the natural advantages of cereals as foods?
2. How many groups of foods are prepared from the cereal grains?
3. What products are made from the cereal grains?
4. What products are beverages made from?
5. What is the general characteristic for all cereal grains?
6. What does the food value of cereal depend on?
7. What basis is popcorn graded on?
8. Can you say anything about barley classes?
9. What is the basis for oats classification?
10. How is parboiled milled rice processed?
11. How many general meanings has grain quality?
12. What is flour made from?
13. How many classes may white flour be divided into?
14. What is bread flour used for?
15. What is pastry flour used for?
16. What are bread flours made from?
17. What are pastry flours made from?
18. By what is the strength of bread flour measured?
19. What are pastry flours characteristics?
20. By what may the strength of soft wheat flours be measured?
21. What can you say about pastry flour dough?
22. What can you say about semolina?
23. What can you say about the quality of rice?
24. What are the most important quality characteristics of grain?
25. What can you say about rye flour?
26. What kinds of tests may be used to evaluate the flour?

Task 4. Fill in the gaps with the words in the box.

eat, pizza, a glass of; worry, some; wolf; cook; idea; some; a little; much; any

Ann: I'm as hungry as a _____ . Let's have something to _____ .
Paul: O.K. What about _____ ?
Ann: Oh, It'll take a lot of time. Let's _____ an omelette.
Paul: Oh, it's a good _____ !
Ann: Then bring me _____ eggs, _____ milk and _____ flour, please.
Paul: It's a pity, but I can't find _____ flour.
Ann: Don't _____ . That'll be enough.
Paul: Shall we have _____ cheese and ham?
Ann: Yes, of course. And we need _____ tomatoes too.

Now using the words below role-play similar dialogues.
Vatrushky: flour, sugar, eggs, butter, curds.
Pizza "Margarita": mushrooms, cheese, onions, mayonnaise, flour, salt, eggs, chicken.

Task 5. In teams use the words/phrases below to make up sentences.
eating habits, count calories, foods rich in fibre, go on a diet, put on extra weight, feel fit and strong, be slender, cereals, raw fruit and vegetables, look smart, junk food, dishes, spicy, low-caloric foods, sweets, vegetarian, juice, rolls, cakes, fatty, popcorn, porridge, chips.

Example:

Porridge. Porridge for breakfast as an English eating habit is good for us. It contains carbohydrates and vitamins B and E. We should eat it regularly.

Chips. Chips aren't very good for us. They are spicy and made with salt. We shouldn't eat much junk food.

Task 6. Give your reasons to agree or disagree with the statements below as in the following examples:
1. In addition to having milk, meat, fruits and vegetables the daily food guides recommend four or more servings of grain products each day.

I fully agree with it because products made of cereals contain a lot of proteins, carbohydrates, useful vitamins and minerals necessary for our organism.

2. A person should consume a lot of sugar which gives energy to his brain and body as a whole.

As a matter of fact its not true because the excess of sugar consuming may do a lot of harm to the human organism and cause a dangerous disease diabetes as a result.

3. Eating much cereal products and sweets may lead to overweighting.
4. Brown bread made of rye is much more useful than white bread made of wheat.
5. Porridge eaten as breakfast meals is as useful as fruit salads.
6. Salt is very useful for the human organism because its deficiency causes scurvy.
7. Foodstuffs containing different preservatives and additives make them much tastier and attractive.
8. If you want to lose weight, do it gradually.
9. You should eat regularly and drink five or six glasses of water per day.
10. Only that food is considered to be nourishing and palatable which is eaten with great pleasure.

Task 7. Translate into English.
1. До основних зернових культур належать типові хлібні злаки – пшениця, жито, овес, ячмінь, кукурудза. 2. Пшениця є однією з найважливіших зернових культур. 3. Крупа являє

собою цільні, дроблені зерна хлібних злаків. 4. Крохмаль є основним вуглеводом в хлібних продуктах, і кількість крохмалю в зерні різних культур коливається від 50 до 70 % ваги зерна. 5. Ячмінь використовується для виготовлення крупи, борошна, пива, солоду. 6. Вирощування рису залежить від погодних умов, і для нього необхідно багато тепла і вологості. 7. Пшеничне борошно використовують для вироблення хлібопекарських, макаронних, кондитерських і млинцевих продуктів. 8. Білки житнього борошна багаті на незамінні амінокислоти.

Task 8. Read the text with correct tense forms and discuss it.

Cereal and Cereal Products

In addition to recommending servings of milk, meat, and fruits and vegetables, the daily food guides 1 ___ four or more servings of grain products each day. The major nutrients these foods contribute 2 ___ calories, iron, niacin, and vitamins B1 and B2. Cereals and cereal products 3 ___ all grains served in whole grain, enriched, or fortified forms; for example, wheat, corn, oats buckwheat, rice, and rye.

The protein in grains 4 ___ incomplete. For example, if two or three different cereals 5 ___ consumed at the same time, amino acids missing in one 6 ___ be supplied by the others. We also 7 ___ to combine grains with protein – rich food – macaroni and cheese, egg noodles, buns with hamburger, rice with chicken, and milk on cereals – and thus 8 ___ our amino acid intake.

Most nutritionists 9 ___ eating some cereal products daily because they 10 ___ a fair amount of many nutrients at low cost. However, nutritional values of many breakfast cereals are 11 ___ by consumer groups. The main dispute 12 ___ the practice of eating food, but cereals by themselves 13 ___ limited types and amounts of essential nutrients.

a) are recommending/ recommend/ will recommend
b) were/are/ will be
c) are including/ included/ include
d) will be/ is/ are
e) is/ are/ will be
f) may/ should/ must
g) tend/ will tend/ are tending
h) increased/ will increase/ increase
i) recommend/ will recommend/ are recommending
j) provided/ will provide/ provide
k) were challenged/ were being challenged/ are being challenged
l) concerns/ will concern/ concerned
m) contributed/ are contributing/ contribute

UNIT 4. MILK AND DAIRY PRODUCTS

The great importance of milk in the diet is due to that fact that it contains most of the essential food constituents in easily digestible form. It represents the best source of calcium, a good source of vitamins A, B complex and C, and contains fat, sugar, proteins, and, in smaller amounts, all the other essential mine- rals. To improve the vitamin content of milk, many dairies add vitamin D either by special food given to the cows or by direct addition to the milk.

Composition of milk. The amounts of various constituents in milk vary, from season to season, with the food of the cow and the breed. The average percentage of water is 87. The carbohydrates present is lactose, which is held in solution along with the minerals as soluble salts, such as sodium and potassium chlorides and citrates, magnesium citrate, and calcium phosphate, and insoluble salt, is held in suspension. The fat (butter fat) is emulsified, part of the protein of the milk acting as emulsifying agent. The yellow colour of milk is due to the colour pigment of the fat, which, in turn, is derived from the green food eaten by the cow.

The principal proteins present are casein and albumin. Casein is probably a mixture of compound proteins, the phospho-proteins, and is in part associated with calcium as calcium caseinate. The mixture of casein and calcium caseinate is often called coseinogen.

Cream. The cream of milk is best separated by a centrifuge, which may be so regulated that cream of any desired fat- content may be obtained. Cream contains the same constituents as milk, but in a very different proportion. It resembles milk in many of its properties. Heat affects it in a similar fashion, and lactic acid bacteria develop in it, producing acidity. Cream intended for retailing is usually of two grades — heavy or whipping cream and coffee cream. Cream, without any qualification, is usually understood to mean coffee cream. The difference in the two grades is solely difference in fat content. Whipping cream must contain not less than 30 per cent of fat and coffee cream not less than 18 per cent. The selection of cream by the private consumer can be based only on its flavour and cost.

Cheeses. “The curd of milk which has undergone changes in its composition through the growth of microorganisms” is a fair definition of cheese. Most cheeses are made from the acid curds. Cottage cheese represents the casein of milk separated by acid coagulation, along with a high percentage of calcium salts and fats. The water is not very thoroughly pressed out of this cheese so it contains many of the soluble salts of the milk. The curd produced by either rennet or acid constitutes a green cheese, which must be allowed to "ripen", undergoing marked changes in the constituents of the curd. The course of ripening depends upon the microorganisms present in the green cheese. The use of different kinds of milk rennet from the gastric secretions of different animals, and the place of ripening, all have a pronounced effect on the flavour and other characteristics of the cheese. It is, therefore, not surprising to learn that there are approximately 400 known varieties of cheese. All cheeses may be considered as rich sources of protein and protein decomposition products, and of minerals, especially calcium. The composition of each cheese will vary according to its preparation. Some contain more of the whey of the milk, or more of the fat of the milk, and these influence the percentage of other constituents. The composition of cheese determines its use in cookery. While it does not require cooking, it is often desirable to include it with other foods which are to be cooked. Heat softens cheese as the fat melts. Long heating causes the already coagulated protein to shrink, and this sets free the melted fat, leaving protein to appear in the cooked dish in a stringly form, a state of affairs which can be avoided only by shorter cooking. Dry heat evaporates the water and hardens the cheese.

Butter. If cream is whipped or churned for a long time, the fat globules combine, and fat separates out in lumps which include some of the proteins, milk sugar and salts with a considerable quantity of water adhering. This mass is essentially butter. Most of the butter on the market is made from pasteurized cream to which a starter (a culture of bacteria) has been added. The main purpose of pasteurization is to reduce the number of microorganisms which might be pathogenic or produce undesirable flavour in the butter. Milk with known content of lactic acid bacteria is added to start the “ripening” of the pasteurized cream. During the ripening process compounds are produced

which give butters their characteristic flavours. At the same time, the lactic acid produced aids in the more complete separation of fat from the other constituents of cream (butter-milk). After the ripening process, the cream is churned to separate the fat. The amount of colouring matter to be added depends upon the amount of natural colour in the cream, and this varies according to breed of cow and the amount of green food consumed by her. The separated fat is washed to remove the adhering buttermilk, but carefully, as too much washing produces a flat-tasting butter. Salt is now added for three reasons: it helps in the removal of buttermilk, it enhances the flavour of the butter, and it improves its keeping qualities. The amount of salt added varies with the amount of water left in the butter; the more water the more salt. The legal amount of water in butter is less than 16 per cent. The appearance of the butter is some indication of water content. All butters contain a high percentage of vitamin A, the amount varying with the breed of cattle and the season of the year.

Ice cream is made from milk, milk solids, cream, flavourings, and sweeteners. Nuts and fruits are sometimes added. Ice cream is higher in calories than milk.

Yogurt is made by fermenting milk (whole, skim, or low – fat milk or milk solids) with different strains of bacteria. Most commercial yogurts are low in fat and high (20%) in galactose. But more than half the weight of some yogurts consists of added sugar and fruits. Dairy or related products also include filled and imitation dairy products (for example, filled cheese). Most filled products contain milk solid and non-butter fat; they come in forms such as cheese and canned milk. An imitation dairy product is one that resembles real milk products, especially in flavour and cooking characteristics, but doesn't contain any milk solids. Instead, it contains nondairy ingredients.

In the last few years, the consumption of dairy products has declined for various reasons. Technology has created a large number of nutritious beverages other than milk that cater to the taste and preference some consumers. The thereat of high blood cholesterol and obesity has also played a role; many consumers use dairy substitutes instead. In addition, many people are still ignorant about the value of milk.

Active Vocabulary

acidity	кислотність
butter milk	маслянка, сколотини
calcium	кальцій
canned	консервований
churn	збивати масло
coagulated	коагулювати; згущатися
composition of milk	склад молока
condensed milk	згущене молоко
constituents	складові
contain	містити
cream	вершки
cultured milk foods	кисломолочні продукти
curd(s), cheese	сир
dairy products	молочні продукти
determine	визначати, зумовлювати
digestible	легкотравний
digestion	травлення
digestive	травний
dry milk	сухе молоко
emulsifying agent	речовина, що утворює емульсію
fat content	склад жиру
fermenting milk	ферментне молоко
flavouring	ароматизатор
ice cream	морозиво

insoluble	нерозчинний
kefir	кефір
lactic acid	молочна кислота
margarine	маргарин
milk rennet	згортання молока
mixture	суміш
pastereurized	пастеризований
potassium chloride	хлористий калій
separate	відділяти(ся)
skimmed milk	збиране молоко
sodium chloride	сода, хлористий натрій
soluble salts	розчинні солі
sour cream	сметана
stringly	волокнистий, волокнуватий
sweetener	наповнювач (підсолоджувач)
vary	змінюватись
whey	сироватка
whipping cream	збиті вершки
whole milk	незбиране молоко
yogurt	йогурт

Task 1. Group the words below under the following headings:
Dairy products. Cereals. Fruits. Herbs. Vegetables.

blackberry	maize	peanut	fig
beans	mint	sour cream	wheat
cream	onions	rye	ice cream
flour	quince	pineapple	lettuce
gooseberry	filbert	turnip	parsley
grape	dill	nectarine	pumpkin

Task 2. Math the word with its definition.

a) ice cream	1. dairy product made by fermenting milk with different strains of bacteria
b) cheese	2. partial sterilization by heating
c) pasteurization	3. mixture of casein and calcium caseinate
d) yogurt	4. principal proteins found in milk
e) caseinogen	5. milk product made from acid curds (on the basis of changes of its composition caused by microorganisms)
f) casein and albumin	6. mixture of milk, milk solids cream, flavourings and sweeteners
g) butter	7. manufactured substitute for butter, consisting of a blend of vegetable oils or meat fats mixed with milk and salt
h) margarine	8. cultured dairy product obtained by fermenting of cream with its later ripening (aging)
i) sour cream	9. dairy product obtained by churning the fat from milk until it reaches a solidified form

Task 3. Fill in the gaps using the words in the box.

foam, aged, milk, fluid, coagulates, homogenization, whipping, evaporated, nutritive, viscosity

1. The optimum amount of fat for a _____ cream is 30 to 35 per cent.

2. A cream which is warm or which is not sufficiently aged will whip to butter, as the fat is not sufficiently firm to form a stabilized _____.
3. A 20 per cent cream may be made to pour like 40 per cent cream by _____, a process in which the fat clusters are greatly reduced in size and greatly increased in number.
4. A high fat cream which has _____ and is cold whips faster.
5. Milk and _____ products are available in many forms.
6. Fresh _____ milk is almost always pasteurized.
7. _____, dry, frozen, condensed, and fermented milk (butter milk and yoghurt) are used in preparation of food.
8. Long cooking at high temperatures _____ some protein, causes an off-flavour in the milk, and caramelizes the lactose that is, it decomposes or breaks it down into simpler compounds.
9. You can use dry milk in addition to fluid milk to increase the _____ value.
10. Higher _____ increases the whipping properties of cream.

Task 4. What sort of shop are they in? Role-play the dialogues.

1. Ann. Good morning.
Ben. Hello. A large whole meal loaf, please.
Ann. Here you are. 60 p, please.
Ben. And a half a dozen soft white rolls.
Ann. Would you like the ones with sesame seeds?
Ben. Yes.
Ann. Anything else?
Ben. No, thanks.

2. Rose. Can I help you?
Cora. Yes, I'd like some Cheddar.
Rose. Is it for cooking?
Cora. No, it's to have with biscuits.
Rose. Then I recommend this one. It's mature and quite strong.
Cora. Could I try a little, please?
Rose. Yes, sure.
Cora. Very nice. I'll have half a pound, please.
Rose. Anything else, madam?
Cora. No, that'll be all, I think. Thank you.

Task 5. In teams express your (your friends') likes and dislikes about dairy products (dishes) according to the chart:

She I He My friend	can't stand am fond of feel like like hates enjoys is fed up with	eating having drinking cooking ordering recommending helping	yoghurt milk shake syrnyky semolina cheese ice cream milk sour cream milk desserts coffee glace curd pudding	now for breakfast every morning before going to bed himself at the restaurant for lunch with my friends in the snack bar myself for supper

Task 6. Comment upon the proverb "Tastes differ."

Task 7. Answer the questions.

1. What does milk contain?
2. What can you say about the composition of milk?
3. What milk products do you know?
4. How may the cream of milk be obtained?
5. How are coffee and whipping creams differentiated from each other?
6. What percentage of fat is desirable for a whipping cream?
7. What properties and conditions are essential to whipping cream?

8. What does cottage cheese represent?
9. What determines the use of cheeses in cooking?
10. What is most of the butter on the market made from?

Task 8. Read the text without a dictionary and discuss it.

Milk Products and Alternates

Products derived from fluid whole milk or products that imitate milk's flavour and nutrient content may be consumed in addition to or instead of fluid whole milk. Some people cannot digest fluid whole milk. However, many of them can tolerate fermented products such as cheese, yogurt, or buttermilk, in which the lactose has been converted to lactic acid. Some of them can also drink a small amount of milk. Many children are actually allergic to milk, although some can become accustomed to the product if they drink gradually increasing amounts over a period of time.

When some dairy products are used in place of fluid whole milk, there are important nutritional considerations. If low-fat, skim, or non-fat milk is used, the intake of vitamins A and D and essential fatty acids may be low. If available, products fortified with these two vitamins are preferred. Also, chocolate milk has more calories than an equivalent amount of regular fluid milk.

Task 9. Translate into English.

1. Молоко містить всі необхідні для підтримки життя речовини, що добре засвоюються організмом.
2. Білки молока містять всі незамінні амінокислоти.
3. Більш ніж 50 % мінеральних речовин у молоці складають солі кальцію і фосфору.
4. В молоці містяться вітаміни А, D, E, C, B1, B2, B6.
5. За способом обробки молоко випускають пастеризоване, стерилізоване, вітамінізоване, іонітне, обезжирене.
6. Вершки – це молочний продукт, що містить підвищений відсоток жиру.
7. Кефір – це один із найрозповсюджених харчових продуктів.
8. Кефір готують із незбираного і знежиреного молока.
9. Сир – це молочнокислий продукт, що має високу поживну таенергетичну цінність.
10. Сметана – це молочнокислий продукт, який отримують при ферментизації вершків і наступному їх дозріванні.

UNIT 5. EGGS IN HUMAN DIET

Eggs are indispensable in the average diet. They contain in colloidal form many of the more important but less abundant food materials, vitamins and minerals, along with fat and protein, and are an easily digestible, easily prepared, nutritious, and concentrated food in themselves, as well as being most important in the preparation of many other foods because of their colloidal nature.

There are great differences in eggs which may be attributed to many causes: the feeding and care of the hens, the kind of hen, and the care of the eggs after they are laid.

The consumer has little or no way to judge the quality of an egg from its external appearance. Difference in size does not indicate difference in quality. The colour of the shell is of little significance. The investigation has proved brown-shelled and white eggs alike in composition and in every property. A clean-shelled egg indicates a clean hennery and, therefore, an egg of better keeping qualities and flavour than those with dirty shells. An egg shell with a chalky appearance is usually fairly fresh. A shiny smooth shell indicates an old egg. The price is usually the indication of grade, although large eggs usually command a higher price per dozen than average or small sizes.

Changes in eggs on keeping. The shell of freshly laid egg is completely filled, the yolk spherical in shape, and the white thick and gelatinous. The new-laid egg contains no bacteria which promote spoilage. It may contain drops of blood or bits of extraneous matter. This occurs very seldom, but even when the hens have the best care it is not entirely eliminated. Soon after the egg is laid, evaporation of the water with the dissolved carbon dioxide takes place through the porous shell. As these gases leave the shell, air containing microorganisms enter. At the same time, some of the water passes from the white to the yolk, and the whites begin to lose their gelatinous consistency and become thinner. The exact cause of this liquefaction of gelatinous egg white is not known.

The change may be physical or chemical. It is well known that eggs with thin white do not poach well, as the thin white spreads before coagulation starts. It has been proved that thin whites may be used satisfactorily in cakes, omelets, and soufflés. In other words, the whipping qualities of the egg whites has not been appreciably impaired by the physical change of gelatinous to watery egg whites.

Other changes in the egg occur as the egg ages. The membrane which surrounds the yolk becomes stretched and weakened by increasing amount of water. The yolk no longer appears spherical but flattens out when the egg is broken into a dish; sometimes the stretched membrane around the yolk will be broken on cracking the egg. It is always difficult to separate the yolk and white of an old egg without breaking the yolk.

The change in the location of the water appears to be due to the changing hydrogen-ion concentration of the egg through loss of carbon dioxide. The PH of the egg white increases from about 7.6 when the egg is freshly laid to 9.7 after keeping, an increase in alkalinity of about 100 per cent. The hydrogen-ion content of the yolk also decreases but to a less extent. The standing-up quality of the yolk and the gelatinous quality of the white vary with this increased alkalinity. Freshly laid eggs put in storage in an atmosphere of carbon dioxide in a concentration sufficient to prevent this change in the carbon dioxide content of the egg do not show these changes so markedly. As the yolk and white lose carbon dioxide and become more basic, they are more subject to spoilage through the growth of microorganisms.

The enlargement of the air space is due to the evaporation of moisture from the egg, but as the loss of water depends on the relative humidity of the storage space the size of the air space is not positive indication of either the age of the egg or its quality.

Composition of eggs. The composition of an egg is roughly 75 per cent water, 12 per cent protein, 12 per cent fat and 1 per cent minerals and vitamins. The fat is all contained in the yolk, where it is present with the protein in highly emulsified form. A large percentage of it is in the form of a phosphorus-containing compound known as lecithin. The yolk protein differs in nature and properties from the protein in the white. It is called (ovo)vitellin and is a phospho-protein similar in composition to the casein of milk. Most of the minerals of the egg are found in the yolk. Of these the iron is the most important, being present in sufficient amount to make eggs of the most valuable

sources of this necessary dietary constituent. When we learn that most of the vitamins also are located in the yolk we might conclude that the white is of comparatively little food value but this is not quite true.

The whites are a 12 per cent colloidal solution of the proteins, albumin, mucin and globulin, with few, if any, vitamins and no fat. It is thought that mucin, a compound protein, is largely responsible for the gelatinous consistency of the whites. The value of egg whites depends on the fact that they represent the most easily digestible proteins, and from the point of view of the cook they are indispensable.

The colour, the flavour, and the vitamin content of the yolk are all dependent upon the food which the hen eats. Foods containing chlorophyll increase the depth of the yellow colour. The vitamin A and B complex are always present, the former in abundance. Vitamin D may or may not be present, being apparently dependent on the content of the hen's diet and her exposure to sunlight. The food which the hen eats, the condition of the hennery, and the care of the eggs after they are laid all seem to play a part in the flavours which develop during storage.

For most cookery processes the value of the eggs lies in the protein present in colloidal form. The thickening power of eggs is due to the ease with which the protein coagulates. One egg will thicken one cup of milk to jellied consistency, as in custards. The tendency to foam makes them good leavening agents.

One beaten egg will leaven as well as one-half tea-spoon of baking powder, while if the white alone is used, the leavening power may be twice as great. The actual leavening and thickening accomplished by the use of eggs depend upon 1 he technique of mixing and baking. The emulsifying property of eggs is well illustrated in mayonnaise and cakes. A cake made without eggs is never of so fine a texture, and although, as we know, we can make mayonnaise without eggs, the oil is much more easily emulsified with their use.

Coagulation of egg protein. Many factors, including the rate of heating and the presence of such foods as sugar, and acid, influence the temperature of coagulation of egg, but in every case the temperature of coagulation is well bellow 90 °C. If the egg is heated slowly it begins to thicken at about 65 °C and sets to a jelly at a temperature around 70 to 75 °C. If heated longer, the coagulated protein, which now holds within its mashwork the solution of other constituents, continues to coagulate and to shrink until it no longer can hold all of the solution. The jelly first formed begins to whey or to exude liquid. If the egg is heated rapidly, however, it is quite possible that the jelly stage will not be reached until a higher temperature but will then be so quickly formed that it will immediately shrink. In the preparation of custards, sauces, and other dishes thickened with egg, the directions call for a low cooking temperature because its ability to hold liquid in jelly form.

In the preparation of stirred egg dishes, overcooked egg gives the dish a curdled appearance. The presence of other foods influences the rate of coagulation and the firmness of the resultant jelly. Acids or acid foods as tomato, brown sugar, or fruits decrease the temperature of coagulation and make the custard firmer. The more milk in proportion to egg has the opposite effect, and, while the less firm custards are more palatable, they are more difficult to make, because if these tender jellies are cooked too long or to rapidly they appear to shrink or curdle more rapidly than the firmer ones. The addition of sugar retards the coagulation of egg that is, it raises the temperature of coagulation. This is great help as it is very difficult to heat egg dishes slowly enough in a home to avoid overheating.

When any dish is cooked in the oven, the outer part cooks more rapidly than the centre. If an egg dish, such as a custard, is baked at a high temperature, the outer portions reach the final stage of coagulation before the centre has reached a temperature high enough for this first stage. An egg poached or cooked in the shell in hot water behaves similarly. If put into boiling water, the outer portions become hard and tough before the centre has set, but if held at the temperature of coagulation, the outer portions will still be tender when the centre is sufficiently done. Scrambled eggs become harder as they are cooked. If much liquid is added before heating, they will become watery after long cooking. Even a baked or stirred custard which contains normal amounts of sugar will become watery or curdled unless extreme care is taken to keep a low cooking temperature.

Leavening with eggs. The leavening power of eggs depends on the amount of air which has been incorporated during the beating, as well as the amount of air which is allowed to remain in the batter or dough during the mixing and baking. Because of the colloidal nature of the protein, large amounts of air may be incorporated into egg whites. During the beating, the air bubbles, which are at first large but finally become small, are coated with a coagulated protein film. As the air bubbles become smaller the foam becomes whiter and finally appears to be dry. Recent experiments have shown that egg whites beaten until dry have not only less volume but are also less stable. It is for this reason that many recipes may call for eggs beaten stiff but not dry. Thin egg whites will whip to a larger volume but the foam is less stable than that from gelatinous whites. Acids arid acid salts increase the stability of foams also, and one of the best acid salts is cream of tartar. A cake leavened with egg whites beaten to a stable foam will be lighter in texture. If the foam is unstable, a cake of smaller volume will result. It is partly for this reason and partly because the presence of cream of tartar makes a whiter cake that all angel-food cake recipes call for the addition of cream of tartar.

Egg yolks will also incorporate air, but the amount appears to be considerably less and the foam very much finer.

The effect of the yolk on the leavening power of the white is a matter of speculation. The fat of the yolk is unquestionably the chief factor, although at the present it is thought that other ingredients in the egg yolk also decrease foam stability. Since it is well known that the fat can be emulsified in protein and protein in fat, it is possible that the foaming power of the protein is cut down by the fat emulsified with it. When eggs are used as a leavening agent they should be well beaten. The blending of the other ingredients into either beaten yolk or whole egg without loss of the incorporated air offers little difficulty, as in both cases the air is held in a very fine state of division and surrounded with quantities of blending material. With whites the case is quite different. The blending of these is best done under a blanket, as it were, of the other ingredients. In making a soufflé and angel-food cake, or any other product which is leavened with egg whites only, the quality of the products depends largely upon the blending of the ingredients. In a soufflé, a white-sauce mixture is baked in a slow oven. In mixing the beaten whites with the sauce, an effort should be made to cover the beaten whites with the sauce, before cutting through them, otherwise much of the incorporated air will escape. Air will also escape through too long or too much mixing on the other hand, unless the whites are completely blended, much of the leavening action will be lost, as the proteins of the egg whites are in themselves not sufficiently strong or elastic to hold in the air as it expands in the oven. In products containing many eggs, such as angel-food cake or sponge cake, the region of unblended egg white appears in the baked cake, as a large whole which is produced by the exploded bubbles.

Baking of egg-leavened products. Care must be exercised in the baking also. A hot oven will set the protein along the sides, top and bottom, before the centre is heated. As the incorporated air expands in this soft centre, the top surface will crack to allow escape of the gas held under pressure. Before the baked product is done throughout, the outer portions will shrink and become tough. An oven which is too low, on the other hand, will cause great expansion of gas throughout, and the resulting product will be large in volume but generally dry, through loss of considerable moisture due to the longer baking period. It is needless to say that any product leavened mostly with eggs should be baked as soon after mixing as possible. Unless completely baked, that is, unless at least the first stage of coagulation of protein is reached, the product will fall when taken from the oven, as the gas contracts on cooking.

Meringues are beaten egg whites containing varying amount of sugar. These may be baked in the oven to slightly brown. Those meringues containing a large amount of sugar (3 or 4 tbsp per egg white) brown readily in the oven, but are apt to form a hard crust. Beaten egg whites containing no sugar cannot be baked without considerable protein shrinkage, coalescence of gas bubbles, and loss of incorporated air. Meringues containing a moderate amount of sugar are more easily baked and represent the more typical meringue of today. The formation of small drops of sugar syrup on the top of meringues which have been kept a short while is due to the evaporation of water from the pudding or pie through the meringue forming a concentrated sugar syrup at the surface.

Active Vocabulary

abundant	рясний, багатий
angel food cake	рід бісквіту
baking powder	пекарний порошок
batter	збите тісто
coalescence	з'єднання, злипання
cream of tartar	винний камінь
custard	заварний крем
dough	тісто, густа маса
egg poached	варене яйце
food value	харчова цінність
freshly laid egg, new-laid	свіжознесене яйце
humidity	вогкість, вологість, волога
indispensable	необхідний
leavening agent	розпушувач
leavening power	здатність розпушування
liquefaction	зрідження, розрідження
meringue	меренга (тістечко зі збитих білків з цукром)
mucin	муцин, слизовий секрет
odour	запах, неприємний; аромат, пахощі
otherwise	інакше, або ж
poach	варити яйця без шкарлупи в окропі
scrambled eggs	яєчня
shrinkage	усадка, усушка
sponge cake	бісквіт, бісквітний торт, тістечко
standing-up quality	збережена якість
tbsp = tablespoon(s)	вимірювання в кулінарії, дорівнює трьом чайним ложкам або 15 мл
thickening power	здатність згущувати(ся)
to shrink	давати усадку, усушку
valuable source	цінне джерело
whipping qualities	якість збитих білків

Task 1. Transcribe and pronounce correctly the following words:
indispensable, nutritious, yolk, liquefaction, humidity, coagulation, custard, dough, mixture, shrink.

Task 2. Match the word or words with the definition.

1. shrinkage	a. pudding or sweet sauce of eggs and milk
2. coalescence	b. thick mixture of flour and liquid for baking
3. custard	c. light sponge cake
4. dough	d. substance causing dough to ferment and rise
5. angel cake	e. white part round the yolk of an egg
6. leaven	f. yellow inner part of an egg
7. egg-white	g. drying out
8. yolk	h. coming together and forming a whole

Task 3. Fill in the gaps using the words in the box.

Shrinkage, odour and flavour, well beaten, dipped, quality of eggs, processing, cookery processes, leavening agents.

1. There are some factors which affect the _____ and they can be discovered only after the egg is broken.
2. For the consumer, the _____ of the egg are very important.
3. Eggs are preserved on the commercial scale by freezing, by dryings and by _____ .
4. Processed eggs are _____ in a suitable oil which fills the pores of the shell and then they are placed in storage.
5. The size of eggs varies greatly but this variation is neglected in making recipes for _____ when small amounts are used.
6. The tendency of eggs to foam makes them good_____ .
7. When eggs are used as a leavening agent, they should be _____ .
8. Beaten egg whites containing no sugar cannot be baked without considerable protein _____ and loss of incorporated air.

Task 4. Answer the questions:

1. What do eggs contain?
2. What does a shiny smooth egg shell indicate?
3. What changes can you observe in eggs?
4. What is the composition of an egg?
5. What are the colour, the flavour and vitamin content of the yolk dependent upon?
6. What does the leavening power of eggs depend on?
7. What factors influence the temperature of coagulation of egg?
8. Why eggs should be well beaten when they are used as a leavening agent?
9. What care must be exercised in the baking of egg-leavened products?
10. Why are eggs indispensable in the average diet?

Task 5. Choose the correct form in bold.

1. Eggs **are/is** easily prepared/prepare.
2. The shell of freshly laid egg **is/are** completely **fill/filled**.
3. The exact cause of this liquefaction of gelatinous egg white **is/are** not **know/known**.
4. It **has/have** been **prove/proved** that thin whites may be used satisfactorily in cakes, omelets and soufflés.
5. Most of the minerals of the egg **is/are find/found** in the yolk.
6. Most of the vitamins also **are/is locate/located** in yolk.
7. When any dish **are/is cook/cooked** in the oven, the outer part cooks more rapidly than the centre.
8. In a soufflé, a white-sauce mixture **are/is baked/bake** in a slow oven.

Task 6. Translate into English.

1. Яйця є необхідним компонентом в раціоні харчування людини.
2. Вони містять вітаміни, мінерали, жири та білок.
3. Білок яйця широко використовується для приготування тістечок, омлетів, суфле.
4. Яйця, які зберігалися в сприятливих умовах впродовж кількох місяців, не втрачають своєї харчової цінності.
5. Колір, смак і склад вітамінів у жовтку залежить від корму, який давали курям.
6. Заварні креми варто готувати при низькій температурі, інакше вони будуть водянистими.
7. Для того, щоб тісто при випіканні добре «піднялось», яйця необхідно добре збити.
8. Для отримання тістечок певного розміру, до рецепту яких входять білки, необхідно збити білки в стійку піну.

9. Коагуляція яєць залежить від багатьох факторів: ступеня підігріву, наявності цукру, кислоти та ін.
10. Кислота зменшує температуру коагуляції.

Task 7. Read the text and discuss it.

EASTER EGGS GAMES

The kids are looking forward to Sunday when they wake up and see that the Easter Bunny left for them baskets of candy and hidden Easter eggs. Children all over the house and garden look for eggs. Even is held a special event – search of eggs. A child who collects the most gets a prize. These festivals are held in parks and restaurants, but you can arrange a hunt for eggs and home to the delight of the kids, think of some rhyming clues, little poems, which will help to find them.

Easter egg rolling is carried out in the open air, on a slope covered with grass. The goal is not to break the egg. Egg, rolling from the mountain, symbolizes the stone rolled away from Holy Sepulchre.

Holy Sepulchre – Священна Гробниця

UNIT 6. BATTER AND DOUGH

We must begin our study with the properties of the classes of foods and then proceed to the reactions of those foods with each other, applying the known theories as we go. Just as the chemist, after his preliminary study of elements, compounds, and their properties, is able to devise new methods of preparing well-known chemicals, to synthesize new substances, and to develop new theories, so it is possible for the students of food preparation to devise better methods preparing standard dishes, to originate new combinations, and to explain familiar facts by new theories.

Inasmuch as even the simplest food is complex in nature, the properties of the component substances cannot be so well defined, as in chemical reactions, but a few general statements may be made regarding some of them.

Flour and gluten. The main cooking value of flour lies in the fact that it holds all ingredients together. The starch in flour is capable of absorbing large quantities of water when heated. The proteins, gliadin and glutenin, unite physically to form gluten, an elastic mass of varying degrees of toughness. Like starch, gluten absorbs a large quantity of water and assists in giving form to a cooked product as it coagulates, when heated.

As the amounts of starch and gluten vary in different kinds and brands of flour, so the water-absorbing power of flours varies. A cup of flour mixed with one-third of a cup of milk may give a soft dough with one flour and a stiff dough with another. For this reason, many recipes call for “flour to make a stiff dough” rather than state the exact ratio of flour to liquid. The so-called “kitchen tested flours” of the same brand should have the same absorption power, so that once the proper ratio of flour to liquid is determined with one of these flours, recipes with exact amounts of flour and liquid can be followed with assurance of success.

The amount of water which a flour can absorb is particularly important in stiff doughs, as baking-powder biscuits, rolled cookies, rolls, pastry and bread, but in all batters and doughs the amount and development of gluten are extremely important because the lightness, toughness, and palatability depend upon it. We think of gluten as strands of sticky elastic protein made by mixing the flour with water. The longer the flour mixed with the water the thicker or tougher the strands become. Over mixed flour makes overdeveloped gluten, and, as it is more difficult for the bearing gas to stretch the strong elastic strands, one of main results of overdeveloped gluten in heavier, compact, baked product. Often sufficient pressure is exerted by steam in a baked product to bore its way through the overdeveloped gluten, but this has little leavening effect. Steam forcing its way through the softer centre of the baked product makes tunnels. Another effect of the overdevelopment of gluten is that of toughening due mainly to the fact that the fat which ordinarily surrounds and separates the particles of a cake or cookie is absorbed by the thick strands of gluten.

While the development of gluten can be controlled by the amount of mixing, it is interesting to know other factors which are also influential, it is natural that the ratio of water to flour would be significant as the strands of gluten are made thicker and thicker by rubbing the sticky strands together. Consequently when the amount of water is great, as in such thin batters as popovers, it is difficult to overdevelop gluten. In most batters and doughs, the ratio of water to flour is almost ideal for gluten development, consequently, care has to be exercised, both to make enough gluten to give structure and elasticity to the baked product as well as to avoid its overdevelopment. The acidity or basicity of the dough affects the character of the gluten. Both excess acid and hydroxide soften gluten, making it appear more sticky, as a cake with too much acid or hydroxide has less volume and is more compact, chewy and moist. The residues of baking powders vary as to acidity and must be taken into consideration.

Sugar. It goes without saying that sugar increases the sweetness of a dish. Curious as it may seen, the addition of a small amount of sugar counteracts the effect of salt. Many a cook has escaped harsh criticism by adding "a dash of sugar" to a soup or gravy which has been made too salty. Sugar has another effect on flavour which seems less strange only because it is more familiar, it offsets an acid flavour, and, when, added to an under-ripe or excessively acid fruit or vegetable, brings out the natural flavour which was formerly masked by the acid. There are no explanations for

the effect of sugar on flavour. In fact, the subject of flavour in general has long been an unsolved problem in the hands of chemists, physiologists, and psychologists.

In a cooked dish, the presence of sugar increases the tendency to brown (caramelization) and to become crisp or "chewy" The addition of a large amount of sugar to a cake batter gives a product which will be well browned and crisp; in fact, it might well pass under the disguise of cookie if baked in suitable shapes.

As the development of gluten is hindered by the presence of sugar, the texture of flour mixtures is affected by varying the amounts of sugar. Muffins which are tough and compact from the overdevelopment of gluten would have been light and tender had the amount of sugar in the recipe been increased. The sugar prevents the overdevelopment of gluten, and, consequently, the gluten gives to the gentle pressure of expanding gas (CO_2 from baking powder or baking soda), making light fine-grained muffins without steam tunnels. The steam collects in the holes made by the carbon dioxide.

If a large amount of sugar is added to a batter or dough, the development of gluten may be hindered to the point, that the baked product has insufficient structural material. A cake which falls during the baking is often due to the use of too much sugar which is not compensated by extra mixing. Sugar will hinder the gelatinization of starch also.

Eggs. Thanks to eggs' colloidal nature they can be used as an emulsifying agent, a leavening agent, and a binding material. Because of the difference in composition of whites and yolks, the effect of a product will also vary. The white binds and leavens well. The yolk binds and leavens less well, but increases the tenderness and fineness of texture of the product to which it is added. The whole egg will naturally show the characteristics of both white and yolk.

When many eggs are used, a large volume is obtained but the greater amount of coagulated protein toughens and dries the product. Like sugar, eggs prevent the normal development of gluten but the results are less disastrous as the coagulated egg protein helps to keep the cake from falling.

Fat. The most important function of fat in food preparation is that of increasing the tenderness of a product to which it is added. This effect is brought about by the separation of the particles of a food by enveloping fat. In the preparation of any tender food-pastry, cake, or biscuits the efficiency of the fat is increased when care is taken that the fat surrounds, but is not absorbed by, the other substances present in the food. Since developed gluten absorbs fat, the greatest care is necessary in preparation of tender foods in which gluten is present.

Increasing amounts of fat in a leavened batter cause increasing difficulty in the baking of that batter, as the fat melts and, in so doing, softens the product. This allows the escape of a great deal of gas before the batter has set, which may cause the product to fall. In most recipes the amount of fat is taken together with the amount of milk, water or other fluid constituent as making up the total quantity of liquid in determining the proper ratio of flour or other binding material. For example, if the amount of fat is decreased in a recipe, the amount of milk or water is usually increased.

A cake batter takes less liquid than a muffin batter, because the former has much more fat. Fat affects flavour also. Most fats contribute a flavour of their own and dissolve many of the flavour — some organic substances which are insoluble in water. It is for this reason that the onions fried in fat have a different flavour from those cooked in water. Because of the great solubility of most substances of delicate but pronounced flavour in fat, this is used to blend the flavours of stews, casseroles.

Milk. In spite of the fact that milk is 88 per cent water its effect on a cooked product is different from that of water. Because of its emulsified fat and its colloidal protein, milk helps to make a finer colloid of any batter in which it is present. For example, a cake made with water has a coarser texture, dries out more quickly, and has a slightly different flavour from one made with milk. A fruit sherbet made with milk in place of water has finer crystals, more body, and richer flavour.

Active Vocabulary

a dash of sugar	дрібка цукру
basicity	валентність, основність
batter	без дріжджове, збите тісто
binding material	зв'язуючий матеріал
brands of flour	ґатунок, якість борошна
casserole	запіканка
chewy	тануч ий
cooking value	якість приготування їжі
crisp	хрусткий
dough	тісто, густа маса, паста
enveloping fat	огортаючий жир
flour	борошно
gluten	клейковина
gravy	підлива, соус
inasmuch as	тому що; через те, що
kitchen tested flours	борошно, перевірене в приготуванні в домашніх умовах
leavening effect	ефект розпушування (тіста)
lightness	легкість
muffin	гаряча здоба, оладки
pastry	кондитерські вироби
popovers	вироби з борошна, яєць, молока по типу вафельних виробів
residue	залишок, осад
strand	пучок, смужка
toughness	в'язкість
under-ripe	недозрілий, недоспілий

Task 1. Transcribe and pronounce correctly the following words:

batter, dough, toughness, flour, palatability, casserole, residue, porosity, sponginess, chewy

Task 2. Match the word or words with the definition.

1. spongy	a. evaporating rapidly
2. porous	b. sauce for food
3. volatile	c. drink of fermented apple juice
4. casserole	d. meal or powder from ground wheat
5. gravy	e. food cooked in the oven
6. cider	f. mingled sensation of smell and taste
7. flour	g. porous, elastic, absorbent
8. flavour	h. full of pores; letting through air, water etc.

Task 3. Fill in the gaps using the words in the box.

melts and softens, gluten, finer colloid, coarser texture, consideration, colloidal nature, basicity, cooking value

1. The main _____ of flour lies in the fact that it holds all ingredients together.
2. _____ absorbs a large quantity of water and assists in giving from to a cooked product as it coagulates when heated.
3. The acidity or _____ of the dough affects the character of the gluten.
4. Eggs can be used as an emulsifying agent, a leavening agent, and binding material, thanks to their _____.

5. We must take into _____ that if the amount of the fat is decreased in a recipe, the amount of milk water is usually increased.
6. A cake made with water has a _____ , dries out more quickly.
7. Milk helps to make a _____ of any batter in which it is present.
8. Increasing amounts of fat in a leavened batter cause increasing difficulty in the baking of that batter, as the fat _____ the product.

Task 4. Answer the questions:
1. What is the main cooking value of flour?
2. What do lightness, toughness and palatability depend upon?
3. What makes overdeveloped gluten?
4. What affects the character of the gluten?
5. How does sugar affect the flavour?
6. What hinders the development of gluten?
7. How do eggs affect batters and doughs?
8. What is the most important function of fat in food preparation?

Task 5. Choose the correct form in bold.
1. We must **begin/must to begin** our study with the properties of the classes of food and then proceed to the reactions of those foods with each other.
2. The main **cooked value/cooking** value of flour lies in the fact that it holds all ingredients together.
3. It goes without saying that sugar increases the **sweet/sweetness** of a dish.
4. A cake which falls during the baking is often due to the use of too **little/much** sugar which is not compensated by extra mixing.
5. When many eggs **are/is used**, a large volume is obtained but the greater amount of coagulated protein toughens and dries the product.
6. This effect **is/are brought** about by the separation of particles of food by enveloping fat.
7. If the amount of fat **is/are decreased** in a recipe, the amount of milk or water **are/is** usually **increased**.
8. Eggs can be **use/used** as emulsifying agent, a leavening agent, and binding material, thanks to their colloidal nature.

Task 6. Translate into English.
1. Виготовлений з борошна крохмаль, що підігрівається, здатний абсорбувати велику кількість води.
2. В’язкість тіста залежить від кількості води в ньому.
3. На смак та структуру печеного продукту впливає склад білку та жовтку.
4. На водопоглинаючу здатність борошна впливає кількість крохмалю і глютену в борошні різного ґатунку.
5. Велика кількість яєць у тісті сприяє тому, що випечений продукт швидко черствіє.
6. При приготуванні пісочного тіста, рідини потрібно менше, ніж при приготуванні дріжджового, так як у пісочному тісті більше жиру.
7. Жир надає смак тісту і розчиняє органічні речовини, нерозчинні у воді.
8. Печиво, виготовлене із тіста на воді швидко черствіє, його смак відрізняється від смаку печива, випеченого із тіста на молоці.

Task 7. Read the text without a dictionary.

HOW TO COOK UKRAINIAN VARENYKY

Ingredients for Ukrainian Varenyky with potatoes:

for making dough:	for making forcemeat:
325 g wheaten flour	560 g potato
150 g water	100 g onion
1/2 egg	40 g oil
sour cream to taste	ground black pepper to taste
salt to taste	salt to taste

Directions:

Unleavened dough. Heat up a half-portion of water to 95-98 °C. Add the water in sifted flour and mix very well. Beat up eggs with salt and remaining water at room temperature. Mix well until the mixture has a homogeneous and thick texture and put in a warm place for 30 minutes. Stuffing. Peel and boil potatoes, dry it a little and rub hot through a sieve, season with onion, fried in oil, pepper and salt (remain some portion of braised onion for seasoning cooked varenyky.

Roll out the dough into a 1.5 mm thick layer. Place prepared stuffing, shaped into balls, through a whole width of rolled out dough layer, stepping back 3-4 cm from its ends. Cover the stuffing with dough layer, pressing it around each ball, and cut varenyky out with a special from. Use again the remaining dough for rolling out.

Immerse each varenik separately into boiling salted water, separating it carefully from bottom of a saucepan with skimmer, and cook for 6-8 minutes at moderate boiling.

Take varenyky with skimmer out of a saucepan, let the water pour down, season varenyky with onion, braised in oil, and pour cream over it.

UNIT 7. MEAT COOKERY

Meat is cooked to make it more palatable, that is, to tender it if it is tough, to improve the flavour, and to improve the colour and appearance.

The two general methods of cooking meat are by dry heat and moist heat. With dry heat, the meat is cooked in an oven, in a frying pan, or directly under a source of heat as in the broiler or directly over a flame as was done in the olden times on the hearth and is done today when meat is cooked on sticks at a picnic. By this process, the protein is coagulated, some of the fat melts always, some water evaporates, and if the temperature is high enough the meat browns. When meat browns, the carbohydrate, protein and fat decompose. In the case of the carbohydrate, we say, it has caramelized. With dry heat, there is practically little change in the connective issues as under the conditions of dry heat, collagen does not change to gelatin. Therefore, it is important to select only the tenderest cuts to cook by the dry heat method.

The moist-heat method is applicable to the less tender cuts, as by this method, the collagen of the connective tissue is converted into the soluble gelatin. The elastin is unaffected, and, for this reason, meats containing a high per cent of elastin are difficult to make tender. With moist heat, the meat is either cooked in water or cooked in moist atmosphere, as for instance when a piece of meat is put in a covered pan in which there is sufficient water to supply steam during the cooking process. A cut of meat not quite tender enough to cook by dry heat, when cooked in a covered roaster, will have most of the desirable qualities of the more expensive cuts when served at the table. If meat is placed in cold water and then heated, much of the myogen and extractives are dissolved out before the coagulation of fibers takes place. If salt is present, the myosin also dissolves. Meat cut up in small pieces, placed in cold water, and then cooked until tender is usually tasteless but the cooking water is very flavour some. The tendering process is slow one, and if much tendering is necessary the more tender parts of the meat may disintegrate, with loss of valuable soluble extractives before the whole is made tender. The myosin and myogen which dissolve out during the first part of the cooking are precipitated by coagulation and usually form a scum on top of the water. The water in which meat has been cooked is called stock. It is now generally agreed that a lower temperature than has been the custom produces the most satisfactory products. The advantages of a lower cooking temperature are many. Just as the protein of egg coagulates and sets to form a jelly so will the protein of meat. But if cooked at too high temperature, the coagulated protein shrinks, water leaves the jelly and the meat becomes hard and dry. This is particularly noticeable with liver.

Unless liver is cooked exactly the right time and at right temperature, it becomes hard, dry, and, rubbery, which is often the reason for its unpopularity. The fat dispersed in other cuts of meat partially disguises the same effect in them. In addition to the deleterious effect on the protein a high cooking temperature increases the losts of fat from meat, fat which not only tenders it, but adds to it juiciness and flavour. With the melting away of fat, the over coagulation of protein, and excessive evaporation of water, the meat shrinks. As a result, there is less meat to serve and what is left is dryer, tougher, and with less flavour.

The use of low temperature for meat cookery has other advantages. A roast of beef, for example, which is cooked at a high temperature will be well done on the outside and centre may be underdone or raw depending on the size of the roast. With low temperature, the roast cooks more evenly. Except for the first slice which is always overcooked, the rest of the roast will be the same throughout, rare, medium, or well-done whichever is preferred. Meat cooked to the well-done stage is cooked longer but not at a higher temperature, and experiments have shown that the longer cooking saves in the cost of fuel. There was a time when it was thought that all meat should be first browned with intense heat, the browning or searing, as it was called, was supposed to make an impenetrable skin through which neither water nor fat could go. Now we know that, if anything, searing increases the loss of fat and that its only advantage lies in the fact that well browned meat is more pleasing to look at, and helps to make a brown gravy.

As far as the rest of the meat is concerned searing has no advantages. With the use of lower cooking temperatures, it takes longer to cook a piece of meat, but the increase in tenderness, juiciness, and palatability justifies the change. It should be pointed out, however, that meat cooked to the well-done stage will be very much less juicy than that cooked to the rare or medium stages, not only because of a greater evaporation of water and melting away of fat.

Active Vocabulary

a roast	печеня
appearance	зовнішній вигляд
beef	яловичина
connective tissues	сполучні тканини
deleterious effect	шкідливий вплив
evaporate	випаровувати
gravy	соус
joint	суглоб
juiciness	соковитість
liver	печінка
moist	сирий, вологий
myogen	міоген
myosin	міозин
palatable	смачний, приємний
roast	смажити
scum	піна
sear	припікати, обпалювати
shrink	скорочуватись
stock	бульйон
tender	ніжний; пом'якшити

Task 1. Transcribe and pronounce correctly the following words:
juiciness, palatability, deleterious, shrink, myogen, myosin, tissue, scum, gelatin

Task 2. Match the word or words with the definition.

1. broth	a. Italian savoury rice dish cooked in stock
2. joint	b. oven, dish, apparatus for roasting
3. gelatin	c. sauce for food
4. risotto	d. thin soup of meat or fish stock
5. roaster	e. division of an animal carcass as meat
6. tissue	f. transparent tasteless substance from skin, tendons, etc., used in cookery
7. gravy	g. result or consequence of an action
8. effect	h. any of the coherent collections of specialized cells of which animals or plants are made

Task 3. Fill in the gaps using the words in the box.

roast, roaster, joint, stock, dry heat, methods of cooking, connective tissue, extractives

1. The water in which meat has been cooked is called _____.
2. If the meat is with _____ before placing in water, it makes a brown stock.
3. Since a stock contains a good deal of gelatin and favour some _____, it is used as a base for soups, gravy, and so on.

4. A jellied stock is more readily made from a meat cut containing bone, as there is more _____ in and near the bone.
5. If a _____ is used especially from a young animal, large amounts of gelatin can easily be extracted.
6. The dry-heat method is best exemplified by roasting, broiling, or pan-broiling, and the tender cuts of meat are suited to these _____.
7. It has been found that the appearance and flavour are better if a _____ is cooked in an uncovered roasting pan.
8. Usually the meat is placed in the _____ with the fat layer on top.

Task 4. Answer the questions:
1. What are the two general methods of cooking meat?
2. When are the myogen and extractives dissolved out?
3. How is water in which meat has been cooked called?
4. What do the myosin and myogen usually form on the top of the water?
5. Why does liver become hard and dry during cooking process?
6. What advantages has the use of low temperature for meat cooking?

Task 5. Choose the correct form in bold.
1. Meat is cooked **to make/making** it more palatable.
2. It is important **to select/selected** only the tenderest cuts **to cook/cooking** by the dry-heat method.
3. Meats containing a high per cent of elastin **is difficult/are difficult** to make tender.
4. The water in which meat **have/has** been cooked is called stock.
5. The use of low temperature for meat cookery **have/has** some advantages.
6. Meat cooked to the well-done stage **is/are** cooked longer but not at high temperature.
7. Well browned meat is more pleasing **to look/looking** at, and helps to make a brown gravy.
8. It should be **pointed/point** out that meat cooked to well-done stage will be very much less juicy than that cooked to the rare or medium stages.

Task 6. Translate into English.
1. Додавати воду під час смаження м’яса не слід, тому що при низькій температурі приготування погіршуються його смакові якості.
2. При певній температурі тривалість варіння завжди залежить від розміру шматка м’яса та його якостей.
3. Біфштекс спочатку підсмажують до коричневої скоринки, а потім тушкують, додаючи томатний соус, кислота якого не тільки придає смак м’ясу, а й пом’якшує сполучні тканини.
4. Якщо м'ясо кладуть спочатку в холодну воду, а потім підігрівають, велика кількість міогену розчиняється до коагуляції.
5. Вода, в якій вариться м'ясо, називається бульйоном.
6. Якщо м'ясо підсмажують перед варінням, то бульйон буде коричневого кольору.
7. Загальновідомо, що приготування м’яса за низьких температур має свої переваги.
8. Якщо шматки яловичини готуються при високій температурі, то проварюються вони лише по краях, а в середині можуть бути недоварені.
9. Кістки молодого м’яса містять велику кількість колагену, але в них менше мінеральних солей.

Task 7. Read the text without a dictionary and discuss it.

ASADO

Asado is a term used both for a range of barbecue techniques, and the social event of having or attending a barbecue in Argentina, Chile, Paraguay, Brazil, and Uruguay. It is also popular in the Philippines. An asado usually consists of beef, alongside various other meats, which are cooked on a grill, called a parrilla, or open fire. Usually the asado begins by igniting the coal. The coal is often

made of native trees, avoiding pines and eucalyptus as they have strong-smelling resins. An asado also includes bread, a simple mixed salad of, for instance, lettuce, tomato, and onions. Beer, wine, soda, and other beverages are common. Dessert is usually fresh fruit. Another traditional from to mainly roast the meat, used in Patagonia, is with the whole animal (especially lamb and pork) in a wood stick nailed in the ground and exposed to the heat of live coals, called asado al palo.

The meat for an asado is not marinaded, the only preparation being the application of salt before and or during the cooking period. Also, the heat and distance from the coals are controlled to provide a slow cooking; it usually takes around two hours to cook asado. Further, grease from the meat is not encouraged to fall on the coals and create smoke which would adversely flavour the meat. A sauce of tomato and onion in vinegar, are common accompaniments to an asado, where they are traditionally used on the offal, but not the steaks.

UNIT 8. BALANCED FOOD IN HUMAN DIET

No one food furnishes all the necessary food elements. A day's, or even a week's menus should be considered as a unit, rather than one meal. By varying the foods from meal to meal, and day to day, one may include all the essential foods.

A thorough knowledge of the chemical composition of foods, and of the physiology of digestion, makes possible a wiser selection of food. One must maintain a good balance of carbohydrates, fats, proteins, and the regulatory elements, i.e., minerals, cellulose, water, and vitamins. The adult person requires a certain amount of fuel foods for the constant functioning of the many involuntary body activities, as muscular tone, secretion of fluids, respiration, and circulation of blood.

The big factor that increases the demand for fuel is exercises or work. Therefore, the more a person exercises, the more he requires fuel foods. These fuel foods are those foods which contain carbon, hydrogen, and oxygen. These elements are found in all fuel, such as wood, coal, alcohol, kerosene.

The food that contain carbon, hydrogen, and oxygen are classified as (1) the carbohydrates, i. e., starches and sugars, (2) the fats, and (3) the proteins: meat, milk, eggs. In the body these three classes of foodstuffs produce energy and leave, as waste, carbon dioxide, and water. These end products are easily disposed of through the lungs, skin, and kidneys.

Proteins, the animal foods, have an added element of nitrogen, and sometimes phosphorus, sulphur, and iron. Since the tissues of our bodies are composed of these same elements, proteins have a special function of building new tissues and of keeping in repair old tissues. If proteins are used for fuel in the body, only the carbon, hydrogen, and oxygen are used, and the nitrogen, sulphur, phosphorus, and iron are but waste products to be eliminated through the kidneys. Proteins are expensive foods, and if used as fuel, only part of the elements are really utilized in the body.

It is therefore wise to use carbohydrates and fats to furnish the fuel for the body, and to use just enough protein to keep the tissues in repair. Tissue building is fairly constant in the adult. It is only in case of actual body growth that extra supply of protein is necessary. Therefore children and invalids require a good supply of milk, eggs, and other simple proteins to build up new tissues.

Our bodies are so complicated in form, that starches, fats, and proteins are not sufficient to supply all our needs. Certain minerals, as iron, calcium, phosphorus, and iodine are equally important in the repair and functioning of the body. Calcium forms a large per cent of bones and teeth. Therefore no one can afford to overlook a generous amount of calcium foods, as milk, milk products, and oranges. Iron is needed in the blood, and in other body fluids. Sources of iron are eggs, fresh, leafy green vegetables onions, carrots, and the bran of cereals. In general we may say, the necessary minerals may be secured by using daily a variety of vegetables, fruits, whole cereals, and plenty of milk and eggs.

Another dietetic factor is cellulose, or bulk of the food. In recent years there has been a tendency to so refine our foods that we do not get the proper amount of bulk. The bulk is obtained from the fibrous part of fruits, and vegetables, and from the outer coats of cereals. Cellulose is neither fuel nor tissue builder, but as waste it increases the rhythmic movement of the digestive tract and acts as a cleanser.

Much has been said in the past few years about a new set of necessary food constituents, called vitamins. Scientists have found that without these the body ceases to function properly. Many of the common diseases attributed to malnutrition are now said to be caused by a lack in the diet of one, or two, or all of the vitamins.

Vitamin A is found in leafy green vegetables, eggs, yolk, butter, cream, carrots, rutabagas, spinach, cabbage, yellow corn, and sweet potatoes. It is fairly stable to heat. Lack of this constituent causes eye diseases, and forms of rickets. Vitamin B is found in plant life, as oranges, spinach, cabbage, turnips, beets, tomatoes, carrots, potatoes, onions, and the embryo of cereals. Deficiency of vitamin B causes a lack of appetite, and general lassitude. Vitamin C is easily destroyed by heat, except in acid solution.

Good sources of vitamin C are tomatoes, and uncooked greens, orange and lemon juice, fresh fruit, raw cabbage, and raw beets. Its absence is shown in skin diseases.

We may say that to avoid any dangers due to shortage of these protective foods, the diet must contain milk, fresh vegetables, leafy greens, eggs, butter fat, and whole cereals. Canned vegetables may lose much of their value as sources of vitamins, due to high pressure cooking, especially if one does not use the liquid in are canned.

For the growing child one must provide a goodly supply of foods rich in mineral and vitamins. In the delicate and intricate weaving of new body cells it is of the utmost importance that not one of the vital constituents be omitted. There is no one perfect food. No vegetable or fruit, can be used to the exclusion of all others. A variety of all the many fruits and vegetables is essential, not only for appetite's sake, but for the actual needs of the body.

A good balance between fat, sugar, and protein is to be desired. Excessive sugar ferments in the stomach cause distress from gas. FaT retards stomach digestion. Therefore, in a meal rich in fat and sugar, the action of the stomach is delayed until fermentation takes place. This is apt to happen after a holiday dinner.

Excessive use of meat tends to intestinal disorders, due to increased bacterial action. Meat is of such pleasing flavour that one must guard against the excessive use of meat to the exclusion of all essential vegetables, fruits, and dark breads.

It is not expected that every meal of the day will contain all the desired foodstuff in the proper amounts, but the day's meals, or the week's meals, can be considered as a unit. Surely in the course of a week the meals can have a good balance of starch, sugar, whole cereals, fat, milk products, eggs, meat, and variety of vegetables and fruits.

Active Vocabulary

almond	мигдаль
bulk of food	основна маса їжі
cereals	хлібні злаки
deficiency	відсутність, дефіцит
digestion	травлення
digestive tract	травний тракт
eliminate	виділяти, видаляти з організму
excessive	надмірний
fluid	рідина
foodstuffs	продукти харчування
fuel foods	їжа як джерело енергії
intestinal disorder	кишковий розлад
intricate	заплутаний, складний
involuntary	мимовільний, ненавмисний
iron	залізо
kidneys	нирки
leafy green vegetables	листові овочі
lungs	легені
malnutrition	недоїдання
meal	їжа
respiration	дихання
rutabaga	бруква
shortage	нестача, брак
skin	шкіра
waste products	відходи

Task 1. Transcribe and pronounce correctly the following words:

digestion, respiration, fuel, phosphorus, shortage, malnutrition, kidney, foodstuffs, rhythmic, desirable

Task 2. Match the word or words with the definition.

1. digest	a. liquid or secretion
2. malnutrition	b. too much or too great
3. fuel	c. breathing
4. respiration	d. assimilate (food) in the stomach and bowels
5. full-blooded	e. grain used for food
6. fluid	f. food as a source of energy
7. gravy	g. vigorous, hearty, sensual
8. effect	h. condition resulting from the lack of foods necessary for health

Task 3. Fill in the gaps using the words in the box.

desirable, sufficient, body fluids, minerals, decomposition products, skim milk, tissue builder, needs

1. The human bodies are so complicated in from, that starches, fats and proteins are not _____ to supply all our needs.
2. In the repair and functioning of the body certain _____ as iron, calcium, phosphorus are very important.
3. Iron is needed in the blood and in other _____.
4. Cellulose in neither fuel nor _____, but it increases the rhythmic movement of the digestive tract.
5. A variety of all the many fruits and vegetables is essential for the actual _____ of the body.
6. Dried _____ is a very economical source of milk proteins and minerals.
7. All cheeses may be considered as rich sources of protein and protein _____ and minerals, especially calcium.
8. The use of white bread is less _____ from nutrition point of view.

Task 4. Answer the questions:

1. What are the main principles of menu making?
2. What is required for the body activity of the adult person?
3. What do the fuel foods contain?
4. What special function have proteins as animal foods?
5. What is the reason of the common diseases?
6. What are the iron sources?
7. What is the role of cellulose in human diet?
8. What tends to intestinal disorders?

Task 5. Choose the correct form in bold.

1. The big factor that **increase/increases** the demand for fuel is exercises and work.
2. The **more/most** a person exercises, the more/most he requires fuel foods.
3. Proteins **have/had** a special function of building new tissues and of keeping in repair old tissues.
4. Calcium **form/forms** a large per cent of boo and teeth.
5. In recent years there **has/had** been a tendency to refine our foods.
6. Cellulose **increases/increasing** the rhythmic movement of the digestive tract and **acting/acts** as a cleanser.
7. Excessive use of meat **tend/tends** to intestinal disorders, due to increased bacterial action.

8. It is not **expected/expecting** that every meal of the day will contain all the desired foodstuffs in the proper amounts, but the day's meals can be considered as a unit.

Task 6. Translate into English.

1. Їжа є джерелом енергії для живого організму.
2. Молоко і молочні продукти мають важливе значення в щоденному раціоні людини.
3. Харчові продукти повинні містити білки і вітаміни.
4. В щоденний раціон харчування обов'язково повинні входити вітаміни оскільки їх нестача призводить до різних захворювань.
5. Фрукти і овочі є джерелом вітамінів і мінеральних солей.
6. Житнє борошно містить більше мінеральних солей, жирів, вітамінів, ніж біле і тому більш поживне.
7. Необхідно стежити за тим, щоб в тижневий раціон харчування людини входили всі необхідні для життєдіяльності організму речовини.

Task 7. Read the text and mark these sentence true (T) or false (F).

UKRAINIAN FOOD

Ukrainian cuisine is very varied, and Ukrainians are known for their hospitality. Though more and more cafes, bars and restaurants are opened offering excellent food at reasonable prices, Ukrainians will never miss a chance to invite you to a family gathering. Women gladly spend a lot of time and energy in the kitchen cooking for family and guests. Usually a traditional festive meal begins with a huge number of starters followed by the main course. The aim is to ensure that a guest's plate is never empty!

Borshch is a soup based on beetroot with meat and vegetables: served with sour cream.

Varenyky are ravioli-like pasta stuffed with mushrooms, meat, cottage cheese, potato, cabbage or cherries (as a dessert).

Holoobtsee – cabbage leaves stuffed with rice and vegetable, or with spicy minced meat.

Mlyntsee – pancakes, often made with sour milk.

At the risk of offending vegetarians, a description of the Ukrainian cuisine would be incomplete without salo – pork lard. Spices are rubbed into the skin and the lard then allowed to stand in cold place. It is eaten in salted thin slices with bread. The smoked version is especially delicious.

Ukrainians are very fond of milk and kefeer (sour version of yoghurt). They also like refreshing non-alcoholic kvas made from fermented brown bread. Uzvar is another summer favourite made from stewed fruit and very similar to iced fruit tea.

Ukraine has a tradition of drinking spirits. Horilka is a popular spirit for adults, mostly men. Women enjoy wine, nalyvka (infusion of fruit and horilka) or vyshnivka (especially tasty variety made from cherries).

1. Ukrainians will never miss a chance to invite you to a family gathering.
2. Borshch is usually served with sour cream.
3. At the risk of offending vegetarians, a description of Ukrainian cuisine would be incomplete without pork steak.
4. Ukraine has a tradition of drinking wines.
5. Coca-cola is a favourite spirit for adults.
6. Nalyvka is an infusion of fruit and horilka.

ЗАВДАННЯ ДЛЯ САМОСТІЙНОЇ РОБОТИ

ADDITIONAL READING

1. Herbs

For centuries herbs have been used for the added flavour they give to food, but also in the preparation of medicines for their health-giving properties. There are in herbs certain substances which, if taken daily, add greatly to the healthy functioning of the body. Growing herbs is common practice in Britain. Most small gardens have their herb border or special corner. But in large cities people have to rely on their greengrocers.

2. Dried Herbs

There is a large selection of dried herbs available, under various brand names and these are equally good. Stews, soups, sauces, meats, vegetables or fish, even cakes, all benefit from the use of herbs. Here are a selection of herbs and their uses:

Basil. Can be added to soup, stews and sauces; put into tomato soup and all tomato dishes; excellent for spaghetti or rice dishes; in stuffing for poultry and with all game. Use with meat, beef, liver or fish. Add a pinch to mixture of other herbs for omelettes, pancakes or cheese soufflés.

Chevril. Use in green salads, potato salads, any egg dish, in boiled, buttered vegetables. Add to soup or stews toward the end of cooking. Use as a garnish like parsley.

Chives. Worked into butter, it is excellent with meat or fish; add to melted butter, pour over boiled potatoes, mix with scrambled eggs or omelettes, with cream or cottage cheese, etc.

Oregano. This is used a lot in Mediterranean cooking, tomato dishes, spaghetti, pizza, soups, tomato, lentil, stuffings, grilled meats, roast and chops.

Rosemary. Freshly chopped it can be added to jams or jellies. This is a herb which should be used with care. Can be used in cheese sauce, omelettes, soup such as minestrone; for strong-flavoured fish, salmon, halibut, with poultry and most meat dishes.

Sage. This is another which should be used sparingly because of its strong flavour. Used in cheese making, it can be added to a cheese omelette, beef, lamb or meat stew; add to meat sauces for stuffings or sausages, or in the water to cook fish.

Thyme. An important ingredient of "bouquet garni". Add to cottage or cream cheese, in tomato, split pea or bean soup. For stuffings, baked and grilled fish, braising or roasting beef, lamb or pork.

3. Spices

Flavouring is an essential factor in all food preparations. Very few foods or dishes are so tasty that they require no extra flavouring. From the earliest age, until recent times, spices were a coveted luxury. The Crusaders returning from distant lands carried the raw spices into their own countries—the flavours of the East were introduced into Europe. Medieval cooks used very large amounts of spices and seasoning in almost every dish. Only those with money were able to use spices, as the price was way out of the reach of ordinary people. It is essential to retain the aroma of the spices, that are stored well usually in a stoppered glass jar. Always use in moderation—it is easier to add extra than try to eat or redeem a dish that is too heavily spiced. Whole spices should be added at the beginning of cooking and ground spices toward the end, except when making curries. Here is a list of spices and their uses.

Cardamom. The dried seeds and seed pods of a plant belonging to the ginger family. Equally good, used either whole or ground. The best comes from Ceylon. Used mainly in baking, it is also an ingredient of curry powder, in spiced mixtures for mulled wines, or with pork.

Allspice. The dried fruit of the tropical allspice tree. The prepared spice is dark reddish-brown. It is available both whole or ground. Use in brine for pickled herrings, boiled fish dishes, soups and stews, pickles. The aroma and taste is rather like a mixture of cloves, cinnamon and nutmeg.

Ginger. Prepared from the roots of the ginger plant. Sold both whole and ground in many varying qualities. Stem or root preserved in syrup, crystallized. The flavour is strong and biting. Use in cakes, biscuits, stewed fruit, meat dishes, puddings and drinks.

Curry powder. A spice mixture from India; can be bought ready-made or made up at home, usually from the following spices: red pepper, ginger, cinnamon, turmeric, cloves, cardamom, nutmeg. Use with meat, fish, poultry, eggs, vegetables, and sauces. Can be either sweet, hot or mild.

Cayenne. The ground fruit of a shrub belonging to the potato family. Rust-red in colour, the spice is very strong and hot. Use carefully. Tabasco is the liquid form of cayenne. Use in meat stews, marinades, fish and vegetable dishes, casseroles.

Cinnamon. The inner bark of a tree of the laurel family. Has a powerful, sweet flavour. Bought either in stick or ground. Use in cakes, puddings, with apple sweets, heated spiced drinks.

4. Herbed Butter

To prepare the herbed butter, first let it soften a bit, then cream it by beating it on an electric mixer, or by mashing it against the sides of a mixing bowl with a large wooden spoon. When the butter is perfectly smooth, beat 1 tea-spoon of lemon juice into it drop by drop, then add the minced garlic parsley, tarragon, and salt. But, if the butter is salted to begin with, do not add any salt at all. With a rubber scraper, gather up the seasoned butter and shape it into a ball. Wrap it loosely in waxed paper and refrigerate until it is firm. If you are in a hurry, a half hour in the freezer will do as well.

5. Vegetables

Vegetables take the larger part in our everyday life. They are important not only for their nutritional value but for the influence they have on the whole process of digestion. They are rich in vitamins, carbohydrates and minerals. Vegetables and fruit are the main source of vitamin C. It should be noted that they differ greatly in their composition.

Potato is a "starchy food". Cabbage is rich in vitamin C, carrot in vitamin A. Onion and garlic cannot only enhance the flavour of a dish but they are also known for their antibiotic properties. Radish, beetroot, horseradish and lettuce intensify activity of the pancreas.

Vegetables are recognized practically by the cuisine of every country and are eaten not only as garnishes and accompaniment to meat and fish but as separate dishes too. The best to cook are of course fresh vegetables but there are also pickled, dried, frozen and tinned ones. Remember that vegetables should not be cooked long before they are served because a great deal of vitamins is ruined especially when heated.

6. Potatoes

A mainstay of our diet since the beginning of the 18^{th} century, when Peter I brought them to Russia, this is one vegetable that can be used at every meal not only as a savoury but also as a sweet. Potato is an excellent source of energy containing starch (up to 24%), carbohydrates, protein, calcium, vitamins B and C. There are more than 40 named varieties of potato grown in Europe. However, we usually know them as reds and whites. Reds are good for boiling, roasting and baking. Whites are excellent for chipping and frying. They bake and mash well too.

Incorrect storing and cooking destroy a lot of their nutritional value. Potatoes should be stored in a dark, cool, airy place. Never store them in the refrigerator. Washed potatoes do not store as well as those that are unwashed. The best way to cook potatoes and retain the most food value is by pressure cooking or cooking in their skins. You should remember the following points: store correctly, peel thinly, cook with care, season to taste and serve hot.

7. Mashed Potatoes

To insure the proper texture and density of your mashed potatoes, choose a mealy baking potato in preference to any of the firmer varieties. Peel the potatoes and cut them into halves or quarters, but no smaller or they will absorb too much water and crumble as they cook. Drop them into 3 pints of salted boiling water and, with pot uncovered, let them boil steadily until they are

tender. It is impossible to say how long this will take; your best gauge is to pierce the potatoes periodically with a small pointed knife. When the pieces are no longer resistant at the centre, they are done. Drain the potatoes at once in a colander, return them to the pan, and shake them over moderate heat until they are mealy and dry.

Do not be tempted to ignore this step, for the success of the mashed potatoes is before you puree them. An electric mixer (not a liquidiser) will do the pureeing most easily and effectively. You can also use a ricer or potato masher and sieve. In any case, mash them into a bowl which you have first rinsed in very hot water and then thoroughly dried. Beat the puree until it is completely free of lumps, then beat into it a little at a time at least 4 ounces of soft butter. Sometimes earlier you will have heated and kept hot 1/2 pint double cream (or single cream or milk, if you must). Beat this into mashed potatoes a table-spoon at a time, using more or less of the cream to give the potatoes the consistency you prefer. Ideally, the puree should be neither wet nor dry and should hold its shape lightly when scooped up in a spoon.

Now beat into it as much salt and pepper as you think it needs and serve the potatoes at once in a heated serving dish. Garnish them with whatever you like; chopped parsley, chives, dill, or basil-fresh, of course; or float a small well of melted butter in the centre. But whatever you do, serve the potatoes the moment they are ready. If it is absolutely necessary, they may be kept warm for a few minutes in a pan set over barely simmering water, but then the first bloom will be gone and they will never taste quite the same.

8. Boiled Fresh Vegetables

The cooking of vegetables is a simple affair and, except for a few more complex braising and baking procedures, rather a matter of timing than anything else. Commonly used vegetables such as peas, French beans, corn on the cob, broccoli, asparagus, Brussels sprouts, cauliflower, and a few others should be cooked uncovered in plenty of boiling salted water, drained, and served immediately, dressed with melted butter, or a sauce of your choice. Vegetables cooked in this fashion preserve their colour, freshness, and flavour to a remarkable degree. But they must be served at once: they will taste as if they had been subjected to the restaurant steam table if they are not.

9. Frozen Vegetables

Interestingly enough, frozen vegetables, before being packaged, are prepared in very much the same way. Technically known as blanching, the process is to plunge the vegetables briefly into boiling water, then into cold water to stop their cooking, then to freeze them immediately. If you must use frozen vegetables, for the best results they should be defrosted before being cooked. Frozen peas, thoroughly defrosted, need only be heated for a few minutes with a little butter in a covered saucepan, seasoned with salt and pepper, and served. Cooking them in liquid for any length of time will destroy what little character they have. Frozen defrosted spinach, should be treated similarly.

Most other frozen vegetables, however, do require further cooking. Bring them to a boil in a little chicken stock or water and with at least l/2 ounce of butter, cover the pan and cook it over moderate heat until it is barely tender. Any liquid, that remains in the pan should be boiled away rapidly with the pan uncovered; shake the pan constantly to keep the vegetable from sticking or burning. A wise precaution is to cook all frozen or fresh vegetables in enamel or stainless steel saucepans, skillets, or casseroles. Many vegetables pick up a metallic taste from aluminium or iron pans, and some, particularly asparagus and artichokes, tend to discolour badly.

10. Braised Vegetables

We do not often braise fresh vegetables – that is cook or more literally, half-steam them in a little stock and butter in a covered pan, and then use the braising liquid, somewhat reduced, as a sauce. Although the braising process can hardly be compared in simplicity to tossing a vegetable into a pot of boiling water, there is still much to recommend it. Since the vegetables are cooked rather slowly, they are less likely to overcook. Moreover, they need not be rushed to the table the

moment they are done, and may be kept warm for a reasonable length of time, or, when cold, reheated, even a day later with little if any loss of flavour. Onions, carrots, turnips, celery, leeks and chicory are particularly well after this kind of preparation.

11. Fruit

Fruit and berries make not only a good dessert but an accompaniment course too. Fresh fruit is used for making tarts, jams, jellies, ice-cream, etc. It is the main source of vitamins, acids, minerals and natural sugars. Much of vitamin C is contained in black currants, nuts, lemons, oranges and rosehip.

Pears, apples and oranges contain vitamins of the B group. Easily digested sugars (glucose and fructose) are found in grapes, cherries, plums, apricots, peaches, etc. Black currants and red currants are not only excellent fruit for tarts and puddings but can also be used for jams, jellies, and being rich in vitamin C are important from the health view-point. They have been eaten in Britain for a very long time and their medical properties for sore throats and winter colds are well known. Strained red currants juice is extremely useful to add to jam made with fruit low in natural acids or pectin. Strawberries are very popular in Britain. Eaten by themselves or with cream or ice-cream, they make a delicious finish to a meal. There are many different varieties grown in this country, all of them good but some more flavour some than others. In the towns we rarely get freshly picked fruit. Dried, tinned and pickled fruit is also popular in Ukraine.

Regions which have a Mediterranean climate are mostly producers of grapes and citrus fruits: oranges, tangerines, lemons, etc. Some fruit like banana grow in countries with tropical climate.

12. Salads

The French divide salads into two large categories: first, the plain salad, or "salad simple", consisting of one or more fresh greens dressed with oil, vinegar, salt, and pepper, or a single cold cooked or uncooked vegetable similarly dressed; and second, the combination salad, or "salad compose", a mixture of various cold cooked or uncooked ingredients, dressed more elaborately. The plain green salad is, of course, comparatively simple to prepare. It should contain only the choicest greens. Whatever you choose, make certain the greens are fresh, discard all imperfect outside leaves, and wash the greens thoroughly under cold running water. Shake them free of excess water, then dry them, literally leaf by leaf, with absorbent paper or kitchen towels. The importance of having salad greens bone dry cannot be stressed too strongly, for no matter how fine your dressing, it can be ruined by any extra moisture. Good fresh salad can form the basis for a meal. Not only is it cooling and light on a hot day, it also contains many of the ingredients important for good health and digestion.

13. Coffee

Coffee is one of the most popular beverages of the world. It is made from a berry grown in tropical climates and shipped to this country green, that is unroasted. All coffee trees are alike, but the berries produced vary in composition with variation in the rate of growth and the treatment after picking. For this reason, Mocha, Java, and South American coffees are quite distinct from each other. There are, in general, three methods of preparing coffee — boiling, percolating, and the drip method. Each differs from the other in the mode of extraction, and as a result, each extracts the water-soluble constituents in varying amount.

Probably one of the greatest essentials in making of good coffee is a clean pot. The coffee should not stand long before serving or caffeol will be lost through evaporation.

14. Tea

The desirable features of tea are less standardized than those of coffee. Some like it black, some like green, some with cream, and others with lemon.

Tea is made from the leaves of a tea bush which is indigenous to the Orient. There are many factors which influence the quality of the tea as purchased. The younger the leaves the better the tea. Some of the poorer teas are made from the older leaves or even stems. The grade and flavour of

tea are influenced by the treatment after picking. Black tea is made from leaves which are fermented before drying. The fermentation darkens the product and softens the flavour. Green tea is not fermented; the leaves are steamed and dried. Its flavour is more astringent than that of black tea, as fermentation affects tannin compounds in the leaf. When lemon juice or lemon is added to tea, whether cold or hot the colour fades.

15. Cocoa and Chocolate

Cocoa and chocolate in themselves contain fats, proteins, carbohydrates and minerals. As beverages made from them are generally made with milk they are much more nutritious than the other beverages. Cocoa and chocolate are made from the bean or seed of a tree which grows in tropical countries. "Cocoa beans vary in quality, according to the place where they are grown. Some excel in rich flavour, others in colour, and others in the body which they give to beverages made from them. In the manufacture of cocoa or chocolate products, the roasting and mending of the different varieties are important factors.

Roasting reduces the astringency by modifying the tannin; it develops flavour and colour, some of the starches are caramelized. After the roasting is completed., the shells and germs are removed. The shells are often used for beverages. When boiled in water they impart a pleasing flavour not unlike cocoa but less sweet. The germ of the seed is a valuable by-product sold for the manufacture of cocoa butter. The remainder (cocoa nibs) is used for the manufacture of cocoa or chocolate. The nibs finely ground and pressed into cakes for plain or bitter chocolate.

16. Wines

Wine adds enormously to the enjoyment of good food. And with the advise of a reliable wine expert it is possible and convenient to keep a good selection of wines in stock. For short term storage use any cool, airy, and preferably dark place where the wines will be undisturbed. Table wines must always be laid on their sides so that all air is excluded. A basic stock might include some wines from each of the following groups.

Aperitive wines. Serve lightly chilled before the meal. Sherry or Madeira can accompany a consommé or meat soup. Served at room temperature in a small V-shaped glass. Sherry is also served at lunch, or at supper, or as a refreshment at any time. It is usually included with cocktails as an alternate choice.

Dry light white wines. Serve with oysters, hors d'oeuvre, cold food and egg dishes, always chilled.

Medium dry white wines. Serve cold with shellfish, fat or fried fish, or fish with sauces, with chicken or veal.

Roses. Serve with anything, preferably well chilled. Particularly useful for pork, cold dishes, chicken and pates.

Light red wines. Serve at room temperature with roast and grilled meat, chicken, turkey or pate, and with cream, mild or medium cheeses.

Robust red wines. Serve at room temperature with strong flavoured food such as game, kidneys, wine flavoured casseroles, braised dishes, and strong cheeses.

Sweet dessert wines. Serve very cold with gateaux, and rich sweets.

Champagne. Can be served lightly chilled, as an aperitive or to accompany the whole meal. Non-vintage champagnes are much cheaper than vintage and good value.

Brandy and liqueurs. They are for drinking after meals.

Serving wine. If more than one wine is served at a meal, the order is dry before sweet. Red wines benefit if the cork is drawn at least an hour or two before the wine is served. When handling wine take care never to shake the bottle and when serving pour the wine gently into sparkling clean glasses. Never fill them more than two-thirds full for this allows the wine to be "swirled" gently in the glass so releasing its full "bouquet".

Рекомендована література

1. Кухарська В.Б. Англійська мова для студентів харчових спеціальностей. – К.: «Інкос», 2007. – 352 с.
2. Смірнова Є.С., Юрчук Л.В. Англійська мова для студентів технологічних спеціальностей та сфери обслуговування харчової промисловості: Навч.-метод. посіб. – К.: НУХТ, 2012. – 232 с.
3. Avramenko O., Skibitskaja N. English. – Kiev, 1987. – 192 p.
4. Glendinning E., Pohl A. Technology / Oxford English for Careers. – Oxford Univ. Press, 2012. – 135 p.
5. Longman Dictionary of Contemporary English. – Pearson Longman, 2003. – 1949 p.
6. Macmillan English Dictionary. – Macmillan Publishers, 2007. – 1748 p.