МІНІСТЕРСТВО ОСВІТИ І НАУКИ, МОЛОДІ ТА СПОРТУ УКРАЇНИ ХАРКІВСЬКА НАЦІОНАЛЬНА АКАДЕМІЯ МІСЬКОГО ГОСПОДАРСТВА

МЕТОДИЧНІ ВКАЗІВКИ

до виконання самостійної та контрольної роботи з дисципліни

«IHO3EMHA MOBA»

(АНГЛІЙСЬКА МОВА)

(для студентів 2 курсу заочної форми навчання напряму 6.060103 «Гідротехніка (Водні ресурси)» спеціальності «Водопостачання та водовідведення»)



Методичні вказівки до виконання самостійної та контрольної роботи з дисципліни «Іноземна мова» (англійська мова) (для студентів 2 курсу заочної форми

навчання напряму 6.060103 «Гідротехніка (Водні ресурси)» спеціальності «Водопос-

тачання та водовідведення») / Харк. нац. акад. міськ. госп-ва; уклад.: Г. Б. Сергєєва. –

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Укладач: Г. Б. Сергєєва

Методичні вказівки до виконання самостійної та контрольної роботи відпо-

відають змісту програми навчальної дисципліни «Іноземна мова» та націлені на

формування навичок практичного володіння англійською мовою в обсязі загальної

тематики необхідної для комунікативної спроможності в сферах професійного

та ситуативного спілкування.

Рекомендовано для студентів 2 курсу заочної форми навчання.

Рецензент: доцент кафедри іноземних мов ХНАМГ,

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Рекомендовано кафедрою іноземних мов,

протокол № 1 від 30.08.2011 р.

Методичні рекомендації для студентів щодо виконання контрольних завдань та оформлення контрольних робіт

Перед тим як виконувати контрольну роботу студенту необхідно докладно вивчити граматичний матеріал, для чого надається список рекомендованої літератури з граматики англійської мови. Перекладаючи текст, слід користуватися англо-українським словником.

Роботи студентів повинні відповідати наступним вимогам:

- а) перша сторінка зошита залишається вільною для рецензії викладача. У зошиті повинні бути поля для зауважень та рекомендацій рецензентів;
- б) вся контрольна робота виконується в зошиті в лінію;
- в) завдання (Tasks) переписуються в зошит; завдання (Tasks) перекладати рідною мовою не потрібно;
- г) матеріал контрольної роботи слід розміщати у зошиті за наступним зразком:

(текст на англійській мові)	(текст на рідній мові)	Поля	

- д) виконуючи лексико-граматичні завдання кожне речення потрібно переписувати у зошит та перекладати на рідну мову;
- е) перекладаючи *текст* з англійської мови на рідну, кожне речення слід писати *з нового рядка*: речення на англійській мові з лівої сторони, а переклад з правої сторони сторінки зошита;
- ж) скорочення слів при перекладі на рідну мову не допустимі.

Перевірена контрольна робота повинна бути виправлена студентом згідно з вказівками рецензента, а недостатньо засвоєні теми семестру слід проробити додатково перед усним заліком.

Якщо контрольна робота виконана без дотримання вказівок чи не повністю, вона повертається студенту без перевірки.

Номер варіанту, який виконує студент заочного відділення, визначається по останній цифрі номера залікової книжки: 1, 2 – варіант 1; 3, 4 – варіант 2; 5, 6 – варіант 3; 7, 8 – варіант 4; 9, 0 – варіант 5.

Вимоги до заліку

До заліку допускаються студенти, які виконали передбачене програмою контрольне завдання та склали усний переклад текстів за фахом. До текстів повинен бути складений словник, яким можна користуватися при перекладі.

Для отримання заліку необхідно

- 1) виконати контрольне завдання на впізнавання і правильний переклад граматичних форм,
- 2) знати лексичний мінімум до текстів (30 лексичних одиниць у семестр).

Студенти, які не захистили контрольну роботу, не допускаються до заліку (чи до екзамену) за відповідний навчальний період.

Приклад оформлення контрольної роботи:

Міністерство освіти і науки, молоді та спорту України Харківська національна академія міського господарства
Контрольна робота № варіант з дисципліни
(прізвище, ім'я та по батькові) шифр залікової книжки
Кафедра іноземних мов Перевиріл(а)
Харків 2012 – 2013

Контрольне завдання 3

Для виконання контрольного завдання **3** необхідно засвоїти наступні розділи курсу англійської мови, використовуючи рекомендовані підручники:

- 1 Граматичні функції та значення слів *that, one, it*.
- 2 Пасивний стан (The Passive Voice), форми дієслів Indefinite, Continuous, Perfect.
- 3 Функції дієслів *to be*, *to have*, *to do*.
- 4 Прості неособові форми дієслова Інфінітив у функції а) підмета,
 - б) частини присудка, в) означення, г) обставини мети, д) додаток.
- 5 Безсполучникове підпорядкування в означальних та додаткових реченнях.

Зразки виконання контрольного завдання

Зразок виконання 1.

Task 1. Read the sentences and translate them into your native language. Underline and define the forms of Passive Voice.

1	Before the purification process began	До начала процесса очистки в			
	some contaminants, such as oil, could	резервуар может попасть некоторое			
	be settled in a settling tank.	количество загрязняющего			
		вещества, например нефти.			
	could be settled – Present Indefinite Pass	sive			
2	A range of local, low-tech solutions <u>are</u>	Целый ряд решений невысокого			
	being pursued by a number of water	технологического уровня местного			
	supply companies.	значения проводятся рядом компаний			
		водоснабжения.			
	are being pursued – Present Continuous	ing pursued – Present Continuous Passive			
3	Historically, however, the vital role of	В ходе истории, однако, не было			
	natural ecosystem services <u>has not</u>	уделено достаточно внимания важной			
	been given much attention.	роли природной экосистемы.			
	has not been given - Present Perfect Passive				

Зразок виконання 2.

Task 2. Read the sentences and translate them into your native language. Underline the words *it*, *that*, *one* and define their function in the sentence.

1	It is commonly accepted that access to	Принято считать, что именно			
	water is a basic human right.	доступ к воде является одним из			
		основных прав человека.			
	It that – усилительная конструкци	Я			
2	The good news is that there are many	Хорошей новостью является то, что			
	things you can do to help.	есть много вещей, которые вы			
		можете сделать, чтобы помочь.			
	that – союз, вводит дополнительное пр	ое придаточное предложение			
3	The private well or public water supply	Выбор между частной скважиной			
	issue is not one of choosing between	или коммунальным водоснабжением			
	ground water and surface water.	не относится к вопросу выбора			
		между подземными или поверх-			
		ностными водами.			
	<i>one</i> – числительное				

Зразок виконання 3.

Task 3. Read the sentences and translate them into your native language. Underline the forms of the verbs *to have*, *to be*, *to do* and define their functions.

1	Organisms, plants and mammals <u>have</u>	Организмы, растения и млеко-			
	access to fresh water to live.	питающие имеют доступ к пресной			
		воде для того, чтобы жить.			
	have – смысловой глагол				
2	Activated carbon or mechanical filters	Активированный уголь или механи-			
	do not remove nitrate, bacteria, or	ческие фильтры не удаляют нитраты,			
	heavy metals.	бактерии и тяжелые металлы.			
	do – вспомогательный глагол для обра	зования отрицания			
3	There $\underline{is(1)}$ a huge market being exploited	Огромный рынок, используемый			
	by the packaged water industry, and	индустрией бутылированной воды,			
	it's(2) growing at 40% per annum. ежегодно увеличивается на 40%				
	<i>is</i> (1) – часть оборота there is/are				
	is(2) – вспомогательный глагол для образования Present Continuous				

Зразок виконання 4.
Task 4. Read the sentences and translate them into your native language. Underline the Infinitive and define its function.

1	To present another approach which	Рассмотрение другого подхода,
	addresses the problem in reverse way	который решает проблему в
	of the existing practice is at the top of	противоположном существующей
	the agenda.	практике порядке, намечено на
		начало повестки дня.
	to present – subject (подлежащее)	
2	It's important for individuals and	Именно для физических и
	businesses alike to explore ways that	юридических лиц в равной степени
	they can use <u>to reduce</u> water	важно изучить возможности, которые
	consumption.	они могут использовать для того,
		чтобы сократить потребление воды.
	to explore – object (дополнение)	
	to reduce – modifier(обстоятельство)	
3	The only way to determine what well	Единственный способ определить,
	water purification system you need is	какая же система очистки воды вам
	by well water testing.	нужна – это сделать тщательный
		анализ воды в скважине.
	to determine – attribute (определение)	
4	The original intention of federal	Первоначальное намерение феде-
	support was to improve the quality of	ральной поддержки заключалось в
	life for rural Americans and thus help	том, чтобы улучшить качество
	life for rural Americans and thus help	том, чтобы улучшить качество жизни сельских жителей Америки и тем самым снизить миграции из
	life for rural Americans and thus help reduce migration from rural to urban	том, чтобы улучшить качество жизни сельских жителей Америки и
	life for rural Americans and thus help reduce migration from rural to urban areas.	том, чтобы улучшить качество жизни сельских жителей Америки и тем самым снизить миграции из

ſ	5	In some regions, tap water may not be	В некоторых регионах водопроводная					
		so easy to access.	вода может быть не так		легко			
			досту	пна.				
ſ		to access – modifier(обстоятельство)						

Зразок виконання 5.

Task 5. Read the text and translate it into your native language.

What is in my drinking water?	Что в моей питьевой воде?			
Your drinking water contains naturally	Ваша питьевая вода содержит			
occurring minerals.	естественные минералы.			
The levels of these minerals vary	Уровни этих минералов изменяются на			
throughout the state, causing differences	всей территории государства, в			
in taste, odour and colour.	результате чего имеются различия			
	вкуса, запаха и цвета.			

Зразок виконання 6.

Task 6. Answer the questions on the text in writing. Be ready to discuss them.

1	Why is chlorine added to my drinking water?
	Chlorine is used as a water disinfectant.

Зразок виконання 7.

Task 7. Find a word or phrase from the text that has the similar meaning.

1	the removal, deactivation or killing of pathogenic microorganisms	water	l
	in water	disinfection	l

Зразок виконання 8.

Task 8. Use an appropriate word or phrase from Task 7 to complete each sentence and underline the option. Translate the sentences into your native language.

1	Water disinfection can be attained by	Обеззараживание воды можно		
		осуществить с помощью физических		
	disinfectants.	или химических дезинфицирующих		
		средств.		

Зразок виконання 9.

Task 9. Use the words from the list below to fill in the blanks in the text. Underline the chosen option.

Most of the water (1)<u>mains</u> are made of cast iron, which makes them affordable and (2)<u>reliable</u>. These water mains can last a long time if they do what they were made to do: (3)<u>transport</u> water from one place to another.

Task 1. Read the sentences and translate them into your native language. Underline and define the forms of Passive Voice.

- 1 Osmosis systems are engineered for high performance, durability and safety.
- 2 It is reported that much care is being taken to prevent the small glass bottle of iodine crystals covered with water from freezing in cold climates.
- 3 Until recently, issues of freshwater availability, use, and management have been addressed at a local, national, and river basin scale.
- **4** Every APEC system is built to meet the most demanding applications in water purification. (APEC, Advanced Purification Engineering Corp.)
- 5 Much is known and has been written about Rome's water supply.
- Our growing population, and our growing thirst for water, are being concentrated in expanding metropolitan areas, and are forcing water regulators and policy makers to find ways to stretch available supplies even further.

Task 2. Read the sentences and translate them into your native language. Underline the words *it*, *that*, *one* and define their function in the sentence.

- 1 Because we undervalue this precious resource, we tend to overuse it and, in fact, abuse it.
- 2 There are thousands of substances that can be found in typical sewage sludge.
- 3 Sewage sludge is mutagenic (it causes inheritable genetic changes in organisms), but no one seems sure what this means for human or animal health.
- 4 Scientists know from model calculations of atmospheric chemistry that the ozone hole increases ultraviolet radiation, and from the results of general circulation models one expects global warming and a rise of the sea level.
- 5 And it is the poorest people on the planet who will feel the climate change effects most deeply.
- **6** When one looks at the data, it cannot be denied that humanity is approaching a self-generated environmental crisis.

Task 3. Read the sentences and translate them into your native language. Underline the forms of the verbs *to have*, *to be*, *to do* and define their functions.

- 1 Some domestic users have to take their water from springs, and there may be occasions when fresh water shrimps and other waterborne creatures emerge from the tap along with the water.
- **2** We do make a whole house reverse osmosis system that delivers about 1500 gallons per day.
- 3 Ecosystem services are essential to life as we know it.
- 4 Don't let a water-related illness ruin a trip abroad for you or your family.
- 5 Packaged water has now become a commonplace commodity and almost a necessity in metros.
- 6 It is becoming abundantly clear that water is not a free good.

Task 4. Read the sentences and translate them into your native language. Underline the Infinitive and define its function.

- 1 It is also one of the methods used to desalinate seawater.
- 2 Our mission and values are to provide healthy and pure drinking water to people throughout the world.
- A plan to purchase emergency generators for wastewater pump systems to prevent spills such as the ones that occurred during last September's region-wide power outage was presented to a San Diego City Council committee on Wednesday.
- 4 I had never thought about absorbing the toxins in the shower but now that I have I will have to make sure I am more careful about where I decide to live and travel.
- 5 To understand the evaluation of a municipal water supply delivery system is the first primary objective.

Task 5. Read the text and translate it into your native language. Water Main Cleaning

Traditional methods of cleaning water mains are flushing and swabbing, however both techniques have some limitations. Flushing is ineffective in low-pressure areas and large diameter mains where velocities are low and swabbing can result in lost, torn or jammed swabs. Air scouring is an alternative to these techniques, which has proven to be effective in areas where swabbing or flushing is unsuitable.

The air scouring technique involves the injection of filtered compressed air into an isolated section of water main to generate increased velocity, which is greater than the minimum velocity required to remove suspended sediments. Air scouring involves a mix of air and water called a slug flow. Given a constant supply of air and water the slug flow strips any loose deposits and some slime from the pipes. Industry experience indicates that air scouring uses approximately 40% less water than normal flushing techniques.

Loose deposits occurring in water mains are the main cause of customer complaints. The removal of these deposits certainly gives rise to a reduction in complaints and improved water quality at customer taps.

Air scouring is designed for water mains less than 225mm diameter however given favourable site conditions it is possible to clean 300mm diameter mains.

Task 6. Answer the questions on the text in writing. Be ready to discuss them.

- 1 What methods of cleaning water mains are mentioned in the text?
- 2 What is a slug flow?
- **3** What is removed from water mains while air scouring?

Task 7. Find a word or phrase from the text that has the similar meaning.

very thorough cleaning of something with air
forcing a large amount of water through a pipe in order to clean it
solid substances that settle at the bottom of a liquid
an amount of gradually developing substance not attached to anything else
the situation and physical things that affect the quality of work, etc

Tas	k 8. Use an ap	propriate word	or phrase from '	Task 7 to comp	lete each sentence
and	underline the	option. Transla	te the sentences	into your nati	ve language.
1	is	s a proven metho	d of efficiently i	removing bio-fi	lms, sediment and
	other debris fre	om the internal b	ore of reticulated	d water mains.	
2	This course is	designed to tea	ch operators the	e different types	s of
	program	ns/procedures.			
3	Many of the _	in our rive	ers, lakes, and oc	ceans have beer	contaminated by
	pollutants.				
4	Unwanted	occur	in drinking wate	er distribution sy	stems at amounts
	that differ from	m network to ne	etwork according	gly to their orig	gin, network flow
		tenance and clear			
5	Optimal or _	for	common bacte	erial culture g	owth include an
		t 37 Celsius, with			
Tas	k 9. Use the w	ords from the lis	st below to fill in	the blanks in t	he text. Underline
the	chosen option.				
	tap	Flushing	maintenance	flow	cleaning
		discoloured			
	The city is	performing a ro	outine (1)	of water main	is throughout the
com	munity. The a	rea inside the fo	ollowing boundar	ries is schedule	ed for water main
$(2)_{-}$, during th	e overnight hour	·S.		
	Changes in	water (3)	during cleaning	g may result ii	n (4) water
serv	ice on streets th	nat are not sched	uled for (5)	Residents are	e advised to check
wate	er for (6)	before turi	ning on washi	ing machines	or dishwashers.
Nei	ghbourhoods so	cheduled for swa	abbing will rece	eive a hand de	livered flyer with
inst	ructions to prep	are for overnight	maintenance wo	ork.	
	(7) and	l swabbing can d	islodge harmless	s (8) linin	g municipal water
mai	ns, resulting in	red or brown co	oloured (9)	water. There a	re no health risks
	spinted with dis	coloured water b	ut high (10)	content may	tain laundry

Task 1. Read the sentences and translate them into your native language. Underline and define the forms of Passive Voice.

- 1 Fresh water resources are unevenly and irregularly distributed, and some regions of the world are extremely water short.
- 2 Water systems are being designed to meet today's environmental issues, and they are expensive.
- 3 It has been estimated that to meet the needs for clean water of the US alone, more than 1,000 treatment facilities will need to be built.
- 4 Oxygen is consumed as micro-organisms use it in their metabolism.
- 5 Dissolved and suspended biological matter will have been removed when secondary treatment is used.
- 6 Testing can be very expensive to do, depending on what is being tested for.

Task 2. Read the sentences and translate them into your native language. Underline the words *it*, *that*, *one* and define their function in the sentence.

- 1 Ecosystem services are essential to life as we know it. (слово-заменитель)
- 2 A benefit of all home filtration systems is that they are passive.
- 3 Chlorine is a chemical method of water purification, and is one of the ancient ways used in treating water.
- 4 It is water that, in taking different forms, constitutes the earth, atmosphere, sky, mountains, gods and men, beasts and birds, grass and trees, and animals down to worms, flies and ants.
- 5 It was this necessity that lead to the development of aqueduct technology.
- 6 One should know that to remove impurities from water by distillation, the water is usually boiled in a chamber.

Task 3. Read the sentences and translate them into your native language. Underline the forms of the verbs *to have, to be, to do* and define their functions.

- 1 You don't have to be able to afford new plumbing fixtures in order to reduce water consumption.
- 2 Water does evaporate from the oceans, but the only way we get it is after it has hit the earth and filled an aquifer, river, stream or lake.
- 3 Our mission and values are to provide healthy and pure drinking water to people throughout the world.
- 4 Water supply Pipeline systems do get built, after all, and the engineers who design them must know what they're doing.
- 5 You have no way of knowing which water purification system you need.
- **6** Generally ground water is the source for housing needs.

Task 4. Read the sentences and translate them into your native language. Underline the Infinitive and define its function.

- 1 Home filtration systems_require no electricity to filter the water, and normal home water pressure is used to force the water though the filter.
- 2 My approach is to identify the contaminants in your water and then prescribe the water purification system or water filter needed to eliminate them within your budget.
- 3 The ability to dissolve many other substances is an important characteristic of water.
- 4 Modern sewerage developments tend to be provided with separate storm drain systems for rainwater.
- 5 To provide recognized practices for conducting water supply tests at prescribed intervals is the second primary objective.

Task 5. Read the text and translate it into your native language. Water Main Cleaning and Lining

Bringing tap water to homes and businesses throughout (the city) Minneapolis requires an extensive network of pipes. There are around a thousand miles of underground water mains in the city that bring clean water from our treatment facilities to your faucet.

To make sure the water you get is of high quality, the city cleans and lines a lot of miles of water mains each construction season. A number of these mains are taken off line for this maintenance work, which begins once the ground thaws in the spring.

Older water mains in town (about 750 of the 1,000 miles of water main) are made of unlined cast iron. Over the years, these pipes get mineral deposits that, while safe, can decrease water volume in the pipe and discolor water for customers.

To fix this, crews scrape off the mineral buildup in these mains. They also add a cement lining to prevent the cast iron water main from future mineral build up. The work adds about 50 years of life to the water mains and keeps the water that goes through them clear. Since the mid-1960s, the city has installed ductile iron that comes with a factory-installed cement lining for any new water main installations.

Crews need to empty the water mains before any cleaning and lining can occur. Customers who use affected lines are supplied with tap water through temporary, above-ground water lines that connects to homes and buildings through exterior faucets.

Task 6. Answer the questions on the text in writing. Be ready to discuss them.

- 1 How does clean water get to your faucet?
- 2 Why clean and line water mains?
- 3 How do customers get water during construction?

Tas	k /. Find a w	ord or phrase	e from the text that	has the simil	ar meaning.
1	applying spec	ial technologie	es or materials to re	ehabilitate pipi	ing
	systems				
2	an organization such as a company, shop, or factory that produces				
	or sells goods	or provides a	service	-	
3	any work such as the repairs, painting, cleaning etc that is				
	•	-	g in good condition	\mathcal{C}	
4	deteriorated of		_		
5		_	quipment that has	been fitted in	its
	place	Tr J/	1. 1		
	Ι				
Tas	k 8. Use an ap	propriate wo	rd or phrase from T	Task 7 to comp	olete each sentence
	_		slate the sentences	_	•
1		_	Bureau rehabilitates		
	mains every y			1	3
2	<i>3 3</i>		the start of February	y that it is to o	pen a water supply
		Middle East.	•	,	117
3	The caretaker	is responsible	for the of the	school buildi	ngs.
4		_	isasters it is necess		_
				•	<i>C</i> ,
5	Sewer and wa	ter main	_ requires careful sec	quencing and p	professional project
	management.		_ •		1 3
	C				
Tas	k 9. Use the w	ords from the	e list below to fill in	the blanks in t	the text. Underline
	chosen option				
	pipe	debris	deteriorated	lining	protect
		hole	pumped	dispensed	force
			nt Mortar Lining S	_	v
	Cement mo	ortar lining is	the application of a	a cement mort	ar (typically about
4mı	n thick) to the	inside of pipeli	ines to (1) aga	inst corrosion	•
			2) is a prove		
(3)			nd steel pipelines. T		
			orrosion (4) p		
			ds depending on the		
			olied by a robot and		
			which it is thrown		•
	•	•	, the mortar is app	•	• •
		_	used is very	_	
	_		ich travels back and		
	ne intermediate		ion duvois ouch and		(10)
w u	ic intermediate	Touder.			

Task 1. Read the sentences and translate them into your native language. Underline and define the forms of Passive Voice.

- 1 Your everyday actions, regardless of whether they are associated with activities where you live, work or play, can contribute to the quality of water that flows from your watershed.
- 2 Nowadays filters are being enhanced by bonding silver metal nanoparticles to the ceramic element to suppress growth of pathogens.
- 3 The term water crisis_has been used to describe the availability of potable water in a variety of regions by the United Nations and other world organizations.
- 4 In an emergency, to purify drinking water, two methods are most often used.
- 5 The ability of surface water sources to meet current and future demands of public water-supply systems they serve has been evaluated by water-supply planners and managers.
- **6** Currently, water supply decisions are being made by the local authorities based on several criteria, including economic, political, social and reliability concerns.

Task 2. Read the sentences and translate them into your native language. Underline the words *it*, *that*, *one* and define their function in the sentence.

- 1 It is the utility's job to build and maintain a distribution system that is capable of providing an adequate and uninterrupted supply of water for residential, commercial, industrial, and institutional customers.
- **2** A common hazardous waste facility is one that stores the waste in sealed containers in the ground.
- 3 WatermakerTM is the only water purification chemical in the world that is able to remove turbidity and sanitize naturally polluted raw water in step, without the need for any specialized equipment.
- 4 These services are so fundamental to life that they are easy to take for granted, and so large in scale that it is hard to imagine that human activities could irreparably disrupt them.
- 5 Oxygen is consumed as micro-organisms use it in their metabolism.
- 6 One can guess that much more fresh water is stored under the ground in aquifers than on the earth's surface.

Task 3. Read the sentences and translate them into your native language. Underline the forms of the verbs *to have*, *to be*, *to do* and define their functions.

- 1 Often polluted water has to be freed from microorganisms.
- 2 The force pushing the water down the pipe has nothing to do with the volume of the tank, nor its surface area.
- 3 Members of the communities are to actually own, operate and maintain the water supply and sanitation facilities given them.
- 4 How do you go about choosing the correct sizes for all the different pipes in the house?

- 5 I had never thought about absorbing the toxins in the shower but now that I have I will have to make sure I am more careful about where I decide to live and travel.
- 6 I think that absorbing the toxins in the shower is not a very widely known fact but if it was I think that people would work harder to force industries to clean up their act.

Task 4. Read the sentences and translate them into your native language. Underline the Infinitive and define its function.

- 1 It is also one of the methods used to desalinate seawater.
- 2 The long-term goal is to provide safe sources of treated drinking water and improved sanitation for all.
- 3 A long-term goal to provide safe sources of treated drinking water and improved sanitation for all has been achieved.
- 4 In general, it takes much longer to clean up polluted water bodies than for pollution to occur in the first place.
- 5 To choose the pipe sizes that will give the flow rates you want is the design goal.

Task 5. Read the text and translate it into your native language. Water Main Cleaning and Lining

Cleaning and lining drinking water mains can prolong the life span of the pipe, for less than the cost of replacing the pipe, and with fewer service disruptions to residents. Instead of completely replacing the water main, it is possible to rehabilitate the pipe if it is in good condition. Corrosion deposits, known as tubercles, build up naturally over time in unlined iron water main pipes. The build-up does not normally affect the quality of the water, but it does reduce the effective diameter of the pipes, which decreases the capacity of the pipes. The buildup can also affect the pressure in the pipes.

A trenchless pipe rehabilitation method called mechanical cleaning and cement-mortar lining is used. Trenchless methods involve only opening holes in the road at the ends of the pipe segment, instead of cutting the road open along the entire length of the water main. Trenchless methods are less disruptive to traffic flow through the work area.

The pipes are taken out of service for cleaning by closing the valves at either end of the line.

The pipes are then mechanically or hydraulically scraped to remove all corrosion products.

Once the pipe is cleaned and the water is removed, a thin lining of cement mortar is applied to the inside of the pipe, which prevents the water from interacting with the iron pipe and forming tubercles.

After the mortar cures, the pipe is inspected, tested, disinfected, and placed back in service. This machine sprays the mortar coating on the interior of the pipe, resulting in a smooth finish.

1	What is the alternative to complete replacing the water main? How are the pipes taken out of service for cleaning? How are the pipes cleaned?
Tasl 1 2 3	the accumulation of minerals in pipes over a period of time someone who lives or stays in a particular place to improve a pipe so that it returns to the good condition it was in before the appearance of the surface of an object without rough parts,
5	lumps, or holes after it has been painted, polished etc applying a thin layer of cement mortar to the interior pipe walls to prevent deposits from reforming
	8. Use an appropriate word or phrase from Task 7 to complete each sentence underline the option. Translate the sentences into your native language. A successful chemical water treatment program will hopefully minimize general corrosion deposit
2 3	Water supply companies provide mainly skilled work for local The latest trenchless technology method was successfully used to repair and the corrosion-damaged pipe in a municipal facility.
5	A thin film epoxy coating provides a of the internal pipe surface for improved flow is necessary to stop internal corrosion.
	erline the chosen option.
reha Whe wide avai (6)_ meth meth oper optic burs	replace deterioration advantages leaking savings There are a number of different (1) methods that can be used to bilitate (2) Some of them are mostly used for sewage and wastewater in (3) of a potable pipe is needed, the options become limited. The most lable for (5) water pipe rehabilitation. In order to fully understand the of the company's cured-in-place liner, it is necessary to compare those and in the determinant of the company's cured-in-place liner, it is necessary to compare those and has been available and the (7) that can be made when compared to the company it is not a lasting solution than can resolve future pipe ting or (9) Ultimately, it is a method that lacks durability and that cannot seed when there is (10) of the exterior pipe.

Task 1. Read the sentences and translate them into your native language. Underline and define the forms of Passive Voice.

- 1 All surface water-supply systems in Illinois are investigated with respect to their future demands and yields of their water sources.
- 2 In this picture we can see how surface runoff is being diverted by humans for their own uses.
- 3 Source waters containing high concentrations of natural organic matter (NOM) have conventionally been treated using metal salts (normally Fe3 + and Al3 + based products
- 4 The movement of water is referred to as the global water cycle (hydrologic cycle).
- 5 Deteriorating water quality threatens the gains that have been made in improving access to drinking water throughout the world.
- **6** Further discharges from contaminated sources are now being prevented thus providing the most effective approach for cleaning up contaminated surface water.

Task 2. Read the sentences and translate them into your native language. Underline the words *it*, *that*, *one* and define their function in the sentence.

- 1 It seems that aquaculture is also *one* of the main reasons for sanity of soil or drinking water or wells in some habitations of coastal areas.
- 2 It is becoming abundantly clear that water is not a free good.
- 3 An ecosystem is a community of organisms plants, animals, fungi and bacteria interacting with one another and the environment in which they live.
- 4 Water purification is a very important process of keeping the water that we drink or use in each day of our lives to be safe and free from contaminants.
- 5 It is not only the developing countries that are guilty of polluting the water bodies with untreated sewage.
- **6** Water purification is not a very one-sided process.

Task 3. Read the sentences and translate them into your native language. Underline the forms of the verbs *to have, to be, to do* and define their functions.

- 1 Water has the important ability to dissolve many other substances.
- 2 The combination of poverty, poor health and lack of hygiene means that children from unserved homes miss school more frequently than those whose families do benefit from improved drinking water and sanitation services.
- 3 In the comprehensive strategy needed for the conservation and development of water resources, several factors are to be kept in view.
- 4 Does the slow filtration process of carbon and multimedia filters require costly energy sources like reverse osmosis and distillation systems?
- 5 If the water has to move at a couple of metres per second, or thereabouts, how much pressure is needed?
- 6 Water purification is a very important process of keeping the water that we drink or use in each day of our lives to be safe and free from contaminants.

Task 4. Read the sentences and translate them into your native language. Underline the Infinitive and define its function.

- 1 I think that absorbing the toxins in the shower is not a very widely known fact but if it was I think that people would work harder to force industries to clean up their act.
- 2 The purpose with a domestic water supply system is to provide the consumers with enough hot and cold water.
- 3 A good point to discuss water consumption in public buildings might be cancelled.
- 4 It is important to know the structure of organic compounds, in order to predict their fate in living organisms and the environment.
- 5 To predict how a real water supply system will behave is surely possible.

Task 5. Read the text and translate it in writing into your native language. Water Main Flushing

To improve water quality and minimize discoloration, *City of Madison* water mains are comprehensively flushed by a technique known as unidirectional flushing. The procedure is performed in warm-weather months and involves the systematic opening and closing of hydrants, one section of main at a time, to force the water through the pipes at high velocity, removing accumulated mineral sediment until the water is clear. The operation can take from a few minutes to over an hour, although most last about 30 minutes.

Unidirectional flushing differs from conventional flushing in that it involves the closing of adjacent valves and the use of a single hydrant per flush so as to isolate individual sections of main. Conventional flushing also removes accumulated sediment from pipes, but it involves the flushing of multiple hydrants at a time and does not include the valving off of individual sections of main, thereby diminishing the "scouring" efficiency. Conventional flushing is used in areas of the city where fewer minerals build up in the mains.

When flushing crews are working close to your residence or business, you may experience periods of very low pressure or even a complete stoppage of service. Flushing operations may also lead to discolored water, which can be drawn into homes and businesses if the water is being used during or immediately following the flushing. Such events should affect customers for a few hours at most.

Task 6. Answer the questions on the text in writing. Be ready to discuss them.

- 1 What season is preferred for water main flushing?
- 2 What types of flushing are there?
- 3 How can flushing affect water service?

Task 7. Find a word or phrase from the text that has the similar meaning.

1	the quality of very thorough cleaning of something by rubbing it	
	with a rough material without wasting time, money, or energy	
2	water the colour of which is changed	
3	a group of people working together with special skills	

5	forcing water not more than	0 1 1	order to clear	I IL	
	l underline the	e option. Transla	te the senten	m Task 7 to compl ces into your nativ	e language.
1	Air flushing veloc	_	ssible at the	normal operating p	pressure and low
2	It is unlikely	that the	would car	ise any health prob	lems.
3				ork throughout the	
	30th to Nove	mber of 2012.			
4	A newly fabr	icated system or o	one that is in-	service requires dif	ferent approaches
	for when and	how to perform _	•		
5	There were _	50 people in	the audience		
	chosen option	1.		in the blanks in th disinfected	
					_
	quality	aecmonmatea	501101	ucoris	quantity
	quality		orary Water		quantity
		Tempo	orary Water		-
tem plac	When a vecess, temporary lines are ced in service.	Tempo vater main is ou y service lines are re (2) and (3	orary Water at of service a used to prov by just like a perience only	Service during the cleaning the	ng and (1) ected area. These nains before being
tem plac	When a vecess, temporary lines are ced in service. ing the installa	Tempo vater main is out y service lines are re (2) and (3 Residents will ex- tion and removal	orary Water at of service a used to prov by just like a perience only of the temporary	Service during the cleaning the	ng and (1) Tected area. These sains before being of water service
tem plac dur	When a vecess, temporary lines are ced in service. ing the installa Temporary ting them in se	Tempo vater main is out y service lines are the (2) and (3) Residents will ex- tion and removal to service lines and ervice. (5) i	orary Water at of service a used to prov by just like a perience onle of the temporal and newly lined as performed to	Service during the cleaning ide water to the afford ke regular water may a short (4)ary lines. water mains must to make sure that a	ng and (1) fected area. These lains before being of water service be flushed before all water lines are
tem plac dur put	When a vecess, temporary lines are ced in service. ing the installa Temporary ting them in second them in second to the from any (6)_	Tempo vater main is out y service lines are re (2) and (3 Residents will ex- tion and removal y service lines and ervice. (5) i that may ha	orary Water at of service a used to prov b) just li experience onl of the temporal and newly lined as performed to every entered the	Service during the cleaning the cleaning the cleaning the cleaning the affixed water to the affixed regular water may a short (4) ary lines. water mains must o make sure that a se system. While the	ng and (1) fected area. These sains before being of water service be flushed before all water lines are is results in some
put free	When a vecess, temporary lines are ced in service. ing the installa Temporary ting them in sector from any (6) count of lost was	remponsater main is our y service lines are the (2) and (3). Residents will extraorder and removal of service lines and the extraorder (5) in that may happen the overall (7).	orary Water at of service a used to prove by just like experience onle of the temporal and newly lined as performed to a ve entered the by is sm	Service during the cleaning ide water to the affixed regular water may a short (4) ary lines. water mains must oo make sure that a e system. While the all and allows us to	ng and (1) fected area. These ains before being of water service be flushed before all water lines are is results in some o maintain a high
put free ame wat	When a vecess, temporary lines are ced in service. ing the installa Temporary ting them in section any (6) ount of lost water (8) the	remponsater main is our y service lines are the (2) and (3). Residents will extraorder and removal of service lines and the extraorder (5) in that may happen the overall (7).	orary Water at of service a used to prove by just like the service only of the temporal newly lined as performed the service of the temporal and line of the temporal newly lined as performed the service of the servic	Service during the cleaning the cleaning the cleaning the cleaning the affixed water to the affixed regular water may a short (4) ary lines. water mains must o make sure that a se system. While the	ng and (1) fected area. These ains before being of water service be flushed before all water lines are is results in some o maintain a high

Task 1. Read the sentences and translate them into your native language. Underline and define the forms of Passive Voice.

- 1 Organics such as herbicides and pesticides, with a boiling point of 100°C are efficiently removed.
- 2 Drinking water supplies are nowadays being contaminated by potentially toxic to aquatic life metals in the urbanized and intensively developed areas.
- 3 In recent years some filters have been enhanced by bonding silver metal nanoparticles to the ceramic element and/or to the activated charcoal to suppress growth of pathogens.
- 4 Real-time data from data-collection station are transmitted via satellite or other telemetry to USGS (*U.S. Geological Survey's*) offices at various intervals; in most cases, once every 1 or 4 hours.
- 5 Water has been prevented from infiltrating by hard ground surfaces and impermeable clay surfaces.
- 6 The community standpipes are now being installed in different zones around the country by the public water and sanitation ministry, to assure that potable water is available in areas that lack piped water to households.

Task 2. Read the sentences and translate them into your native language. Underline the words *it*, *that*, *one* and define their function in the sentence.

- 1 It is a world where there is an improved quality of life for all, especially for the most vulnerable usually women and children who benefit most from good water governance.
- 2 Saline water is a general term for water that contains a significant concentration of dissolved salts (NaCl).
- 3 According to one recent research study, there are now more than 2100 known toxins that can be present in tap water.
- 4 Do not assume that installation of water treatment equipment similar to that of your neighbors will be the answer to improving your household water quality.
- 5 In general, it takes much longer to clean up polluted water bodies than for pollution to occur in the first place.
- 6 The first method of water conservation, and perhaps the one requiring the most investment and equipment on the part of homeowners, is grey water recycling.

Task 3. Read the sentences and translate them into your native language. Underline the forms of the verbs *to have, to be, to do* and define their functions.

- 1 Children in Africa and Asia are missing schools because neither their homes nor their schools have adequate drinking water and sanitation facilities.
- 2 This method does not also guarantee totally safe water especially for drinking.
- 3 These services are so fundamental to life that they are easy to take for granted, and so large in scale that it is hard to imagine that human activities could irreparably disrupt them.

- 4 Carbon and multimedia water filters do waste relatively little water in the filtration process.
- 5 Only about a third of the rural population of Uganda has reliable access to safe drinking water.
- 6 Less than 40% of all rain falling each year on the land surface of the globe is blue water, and more than 60% is green water.

Task 4. Read the sentences and translate them into your native language. Underline the Infinitive and define its function.

- 1 In an emergency, to purify drinking water, two methods are most often used.
- 2 The most common way to soften household water is to use a cation exchange water softener.
- **3** A good point to talk briefly about fixtures and cold water storage capacities is planned by the authorities.
- 4 Foul taste, smell, or color of your household water may prompt you to investigate water treatment equipment.
- 5 To choose the pipe sizes so that the water flows fast enough to fill the bath or the sink in a sensible time without making too much noise is important.

Task 5. Read the text and translate it in writing into your native language. Water Main Swabbing

Swabbing involves scouring the water main with foam swabs and high velocity water. These swabs are injected at a hydrant and pushed along the water main to be removed further down the main through another fire hydrant. The fast moving water scours and cleans the mains. The hydrants are left open until the water runs clear. This helps to keep your water clean, fresh and flowing freely.

The procedure requires that water to services be off briefly while the section of water main to be cleaned is isolated. During cleaning the pressure will be reduced considerably and customers are asked not to run water during this time. Once the water main has been cleaned, normal pressure will be restored. Customers can be impacted more than once. Discoloured water within private services is a possibility after swabbing is complete and corrective actions have been communicated. In addition, there will be contact information for affected owners should they have any questions once the work has been completed.

Most of the work should be completed during the daytime hours, with occasional nighttime work due to the needs of special facilities like hospitals and nursing homes, etc. Most homes and businesses could only be affected once however some homes and businesses could be affected two or more times, due to the location of main valves hydrants and service connections. A separate notice is sent for each occasion.

	k 6. Answer the questions on the text in writing. Be ready to discuss them.
1 2	Why swab water mains? How often do they swab water mains?
3	What time is preferred to swab water mains?
3	what time is preferred to swab water mains:
Tasl	k 7. Find a word or phrase from the text that has the similar meaning. a large underground pipe that carries the public supply of water to buildings
2	a telephone number or address where someone can be found if necessary
3	an organization such as a company, shop, or factory that produces or sells goods or provides a service
4	rooms, equipment, or services that are provided for a particular purpose
5	the process of job of making a house, office etc clean
1 2 3 4 5 Tasl	underline the option. Translate the sentences into your native language. is a principal pipe in a system of pipes for conveying water, especially one installed underground. The following can be helpful to ensure quick and accurate responses. They don't know how to run a The project you are considering requires The spring 2013 Program will begin the evening of May 15th, 2013 with a planned duration of approximately 3 weeks. k 9. Use the words from the list below to fill in the blanks in the text. Underline chosen option.
	pipes build-up residents rehabilitate decreases quality reduce deposits lining drinking
	Water mains are (1) that carry (2) water around the county to
wate	ple's homes and businesses. It is necessary to (3) a portion of the county's er mains every year. Cleaning and (4) drinking water mains can prolong the life span of the e, for less than the cost of replacing the pipe, and with fewer service disruptions to
the particular in the pipe	Instead of completely replacing the water main, it is possible to rehabilitate pipe if it is in good condition. Corrosion (6), known as tubercles, build up rally over time in unlined iron water main pipes. The (7) does not normally ct the (8) of the water, but it does (9) the effective diameter of the s, which (10) the capacity of the pipes. The buildup can also affect the sure in the pipes.

Контрольне завдання 4

Для того, щоб виконати контрольне завдання **4**, необхідно повторити наступні розділи курсу англійської мови:

- 1 Складні форми інфінітиву (Present Infinitive Passive, Perfect Infinitive Active/Passive). Звороти, рівнозначні підрядним реченням: об'єктний дієприкметниковий комплекс, суб'єктний дієприкметниковий комплекс.
- 2 Прислівник (Participle I, Participle II; Perfect Participle Active/Passive). Залежний та незалежний дієприкметниковий комплекс.
- 3 Умовні підрядні речення.
- 4 Узгодження часу.
- 5 Складнопідрядне речення.

Зразки виконання контрольного завдання

Зразок виконання 1.

Task 1. Define and underline the active or passive forms of the Infinitive. Translate the sentences into your native language.

	, , , , , , , , , , , , , , , , , , ,		
1	They plan to make wastewater pure	Планируется очистить сточные воды	
	enough to drink.	настолько, чтобы они стали	
		пригодными для питья.	
	to make – Indefinite Infinitive, Active		
2	They claim to have increased the water	Сделано заявление об увеличении	
	supply by 6%.	подачи воды на 6%.	
	to have increased – Perfect Infinitive, Active		

Зразок виконання 2.

Task 2. Define and underline the Subjective or Objective Infinitive Constructions. Translate the sentences into your native language.

	runsiate the sentences into your native language.				
1	We want the safe drinking water to be	Мы	хотим,	чтобы	безопасность
	everybody's business.	пить	евой водь	і было де	елом каждого.
	Objective Infinitive Construction				
2	Drinking water seems to be contaminated.	Пить	евая вода	, кажетс	я, загрязнена.
	Subjective Infinitive Construction				

Зразок виконання 3.

Task 3. Define participial phrases and nominative absolute participial constructions. Translate the sentences into your native language.

1	Rainfall travelling over roofs and the	Так как осадки текут по крышам и		
	ground, it may pick up various	земле, они могут подхватывать		
	contaminants.	различные загрязняющие вещества.		
	The sentence with the nominative absolute participial construction.			

2	Environmental engineers employ a	Специалисты-технологи по вопросам	
	variety of engineered and natural	охраны окружающей среды исполь-	
	systems to get the job done, using	зуют различные инженерные и естес-	
	physical, chemical, biological, and	твенные системы, чтобы выполнить	
	sludge treatment methods.	работу с помощью физических, хими-	
		ческих и биологических методов	
		очистки и методов обработки осадка.	
	The sentence with the participial phrase.		

Зразок виконання 4.

Task 4. Match the beginnings and endings to make conditional sentences. Define and underline the tense forms of the Conditionals. Translate the sentences into your native language.

J			
1c	If you eat plenty of foods that are	Если вы едите много продуктов,	
	naturally rich in water, you may not	содержащих много воды, вам не	
	need to drink much water at all.	нужно вообще пить много воды.	
	Type I, probable condition		
2 b	If a house <u>had</u> a well, there <u>would</u>	Если бы в доме был колодец, то,	
	probably be a pressure tank near the	вероятно, был бы и водонапорный бак	
	point where the water line entered the	с искусственным давлением вблизи	
	house.	места входа водопровода в дом.	
	Type 2, improbable condition		
3a	If you had not believed the water might	Если бы вы не считали, что вода	
	be heavily contaminated, you wouldn't	может быть сильно загрязнена, вы	
	have doubled the chemical dose to treat	бы не удвоили дозу химического	
	it.	препарата для её очистки.	
	Type 3, impossible condition		

Зразок виконання 5.

Task 5. Define the type of the clause in the following complex sentences.

10	isk 5. Define the type of the clause in the following complex sentences.		
1	How to provide access to sufficient quantities of safe water and facilities for its		
	sanitary disposal is of capital importance.		
	The complex sentence with the subject clause		
2	The point is what else may water pollution include.		
	The complex sentence with the predicative clause		
3	It is a job for every person who just likes to have access to the life sustaining		
	resource of water.		
	The complex sentence with the attributive clause		
4	We must remember that water conservation means using our water wisely and		
	caring for it properly.		
	The complex sentence with the object clause		
5	As the population of the United States, and the rest of the world, continues to		
	grow, water and other natural resources are consumed at an increasing rate.		
	The complex sentence with the adverbial clause of concession		

Зразок виконання 6.

Task 7. Answer the questions on the text in writing. Be ready to discuss them.

What is a water softener?

A water softener is a unit that is used to soften water, by removing the minerals that cause the water to be hard.

Зразок виконання 7.

Task 8. Match the left and the right side to make word combinations and translate them into your native language.

1-c	sewage disposal	водоотведение сточных вод
2-d	municipal wastewater	сточные воды коммунального хозяйства
3-e	effluent water	очищенные сточные воды

Зразок виконання 8.

Task 9. Use an appropriate word or phrase from Task 8 to complete each sentence and underline the option. Translate the sentences into your native language.

1	Sewage disposal systems transport	Системы водоотведения сточных вод
	sewage through cities and other	перемещают сточные воды через
	inhabited areas to sewage treatment	города и другие населенные пункты
	plants to protect public health and	на очистные сооружения с целью
	prevent disease.	охраны здоровья населения и
		профилактики заболеваний.
2	Municipal wastewater refers to the	Городские сточные воды относятся
	contents of sewer systems.	к содержимому канализационных
		систем.
3	Effluent water is water that has received	Очищенные сточные воды это вода,
	primary, secondary, or advanced	которая получила первичную,
	treatment to reduce its pollution or	вторичную очистку или доочистку
	health hazards.	для уменьшения ее загрязнения или
		снижения опасности для здоровья.

Зразок виконання 9.

Task 10. Complete the sentences with the correct words from below and underline the chosen option. Translate the paragraph into your native language.

	1 0
Water is a (1) <u>renewable</u> resource.	Вода является возобновляемым
	ресурсом.
All water (2) <u>treatments</u> involve the removal	Все методы очистки воды связаны с
of solids, bacteria, algae, plants, inorganic	удаления твердых частиц, бактерий,
compounds, and organic compounds.	водорослей, растений, неорганических
	и органических соединений.
Removal of (3)solids is usually done by	Удаление твердых частиц обычно
filtration and sediment.	осуществляется путем фильтрации и
	осадка.

Task 1. Define and underline the active or passive forms of the Infinitive. Translate the sentences into your native language.

- 1 They claim not to have been discharging sewage directly into a nearby body of water lately.
- 2 They are sorry to have discharged sewage directly into a nearby body of water.
- 3 They don't expect sewage to be discharged directly into a nearby body of water.
- **4** They didn't know sewage to have been discharged directly into a nearby body of water.
- 5 They are not allowed to be discharging sewage directly into a nearby body of water now.
- **6** They are not allowed to discharge sewage directly into a nearby body of water.

Task 2. Define and underline the Subjective or Objective Infinitive Constructions. Translate the sentences into your native language.

- 1 The plumber observed gross solids entrain in pipes.
- **2** The design of this domestic water supply system is believed to provide the consumers with enough hot and cold water.
- **3** When you turn on the tap, you expect water to flow out of the tank and down the pipe.
- 4 We are sure to know from Plumbing books what to do in relevant situations.
- 5 The local authorities expected the water supply system to be repaired by 8 o'clock in the evening.
- **6** A new water supply system is said to have met requirements for public, commercial, and industrial activities.

Task 3. Define participial phrases and nominative absolute participial constructions. Translate the sentences into your native language.

- 1 People not drinking water regularly, they can become dehydrated, especially in tropical areas.
- 2 Solid waste going into landfills has a serious impact on the environment.
- **3** A well system being shut off by turning off the power to the pump, the entire contents of the pressure tank spills into the house if a leak occurres.
- 4 All of the wastewater produced by a city eventually ends up in a river, lake, or ocean.

Task 4. Match the beginnings and endings to make conditional sentences. Define and underline the tense forms of the Conditionals. Translate the sentences into your native language.

- 1 If water has a bad taste,
- 2 If sewage water had been treated **b** before was released into rivers,
- 3 If water treatment equipment could be **c** purchased,
- a most of the problems pertaining to pollution would have been solved.
 - rural inhabitants would have installed, operated and maintained that equipment. people are less likely to drink it, even

if it is safe.

Task 5. Define the type of the clause in the following complex sentences. Translate the sentences into your native language.

- 1 The tap is the end of the road for water which is consumed by ourselves, or our family.
- 2 To make wastewater acceptable for reuse or for returning to the environment, the concentration of contaminants must be reduced to a non-harmful level.
- **3** That the local county health department performs tests on the drinking water is important.
- 4 The issue is how to manage water resources and control water pollution.
- 5 The effects of water pollution are varied and depend on what chemicals are dumped and in what locations.

Task 6. Read the text and be ready to translate the passage orally.

If sewage water is treated before its release into rivers, most of the problems pertaining to pollution would be solved. Removal of contaminants is the main objective of the treatment of sewage water. Before the actual treatment of water, effluents need to be pretreated. The process of pretreatment helps in the separation of materials like oils, greases, gravel and sand from the polluted water. It is carried out by the filtration of sewage water. Biological wastes dissolved in water are treated with microbes. It helps in converting the wastes into a solid mass which can be easily separated thereafter. After the biological treatment is over, partially pure effluent is treated with chemical disinfectants. The water that is treated in treatment plants can be used in golf courses, for watering the lawns and also in agriculture for irrigation. Sewage treatment plants generate clear and clean water at the end of the process.

Restoration of wetlands is one of the means of treating sewage water. The wetlands help in processing sewage water naturally, without using any artificial method/technique. The idea underlying the restoration of wetlands is that the bacteria present in them would dilute the nitrates and phosphates. The same process takes place in sewage water treatment plants, except for the fact that, here (in the wetlands) it is carried out naturally.

Task 7. Answer the questions on the text in writing.

- 1 Where can sewage water be released after treatment?
- 2 What is separated from sewage water while pretreatment?
- **3** Where can sewage water be used after treatment?

Task 8. Match the left and the right side to make word combinations and translate them into your native language.

•	0	0		
removal			a	of sewage water
treatment			b	of contaminants
separation			c	of wetlands
restoration			d	of treating
means			e	of materials
	removal treatment separation restoration means	removal treatment separation restoration	treatment separation restoration	removal a treatment b separation c restoration d

Tasl	k 9. Use an ap	opropriate wo	rd or phrase	from Task 8 to c	complete each sentence
and	underline the	option. Trans	slate the sent	tences into your	native language.
1	The	is effective	e with the act	ivated carbon fil	tration.
2	Information ab	out the		_ is available on	the Internet.
3					from good water as
	a treatment tra	in.			
4	The benefits	of of o	degraded or	destroyed	_ and creation of new
	wetlands has o	only recently b	een recognize	ed.	
5	There are vari	ous of	wastewater _	, each one	being used for specific
	levels of conta	ımination.			
Tasl	k 10. Complet	te the sentence	es with the co	rrect words from	n below and underline
the	chosen option.	Translate the	e paragraph	into your native	e language.
	waste	safe	processes	sewage	contaminants
				source	
	Sewage treat	tment is the p	rocess of rer	noving (1)	from wastewater and
hous	sehold (2)	_ water.			
	It includes p	hysical, biolo	gical and so	metimes chemic	al (3) to remove
polli	utants. Its aim	is to produce	an environm	nentally (4)	_ sewage water, called
efflu	ent, and a sol	lid (5),	called sludge	e or biosolids, s	uitable for disposal or
(6)_	Reuse is	often for agri	cultural purp	oses, but more re	ecently, sludge is being
used	l as a fuel (7)	•			
	Water from	the (8)	, used by m	anufacturing, fa	rming, houses (toilets,
bath					lustrial sites, is reduced
					constituents. Organic
					re pollutants that must
	10)	,	,		ı
	,				

Task 1. Define and underline the active or passive forms of the Infinitive. Translate the sentences into your native language.

- 1 Wastewaters of the community are claimed to have been discharging into the nearby body of water lately.
- 2 They regret to have polluted the nearby body of water with sewage.
- **3** Water resources of the community are claimed to be polluted severely.
- **4** Water resources in the area is believed to have been polluted severely.
- 5 Water resources all over the world seem to be getting polluted severely nowadays.
- **6** They would like not to pollute the only water body in the area.

Task 2. Define and underline the Subjective or Objective Infinitive Constructions. Translate the sentences into your native language.

- 1 We want the lawns watered immediately.
- 2 They are likely to get their water delivered from a public-supply system.
- 3 The water damage experts believe a sewage spill to be properly prevented.
- 4 Of all municipal services, provision of potable water is considered to be the most vital.
- 5 The plumber observed the moving parts of the treatment plant cause substantial damage of the system.
- **6** The digging of shallow wells for water seems to be the earliest innovation.

Task 3. Define participial phrases and Nominative Absolute Participial Constructions. Translate the sentences into your native language.

- 1 Your water source being well water, then you must test your water to learn what's in it before purchasing any well water treatment system.
- 2 Due to the physical-chemical processes involved in the treatment, the sludge tends to concentrate heavy metals and poorly biodegradable trace organic.
- **3** Gross solids being not removed, they become entrained in pipes and cause substantial damage.
- **4** After being treated, the sewage sludge may be spread on non-organic agricultural land as a fertilizer.

Task 4. Match the beginnings and endings to make conditional sentences. Define and underline the tense forms of the Conditionals. Translate the sentences into your native language.

- 1 If you melted an iceberg,
- 2 If I hadn't shut the water off.
- 3 If sewage is allowed to flow back into water systems without being treated,
- **a** I would've come home to a flooded basement.
- **b** it causes pollution.
- c you would get drinkable fresh water after you killed any germs.

Task 5. Define the type of the clause in the following complex sentences. Translate the sentences into your native language.

- 1 Most waters contain some suspended particles which may consist of fine sand, clay, soil, and precipitated salts.
- 2 A sewage treatment plant is widely used to treat wastewater sludge and organic waste because it provides volume and mass reduction of the input material to a large extent.
- **3** That the appearance, taste or odor of water from a well or other source offers some information is obvious.
- 4 The question is how we can provide our visitors with useful, current information on the importance of water treatment
- 5 It has been estimated that some 200,000 miles of asbestos pipe is presently in use to transport our drinking water.

Task 6. Read the text and be ready to translate the passage orally.

We consider wastewater treatment as a water use because it is so interconnected with the other uses of water. Much of the water used by homes, industries, and businesses must be treated before it is released back to the environment.

If the term "wastewater treatment" is confusing to you, you might think of it as "sewage treatment." Nature has an amazing ability to cope with small amounts of water wastes and pollution, but it would be overwhelmed if we didn't treat the billions of gallons of wastewater and sewage produced every day before releasing it back to the environment. Treatment plants reduce pollutants in wastewater to a level nature can handle.

Wastewater is used water. It includes substances such as human waste, food scraps, oils, soaps and chemicals. In homes, this includes water from sinks, showers, bathtubs, toilets, washing machines and dishwashers. Businesses and industries also contribute their share of used water that must be cleaned.

Wastewater also includes storm runoff. Although some people assume that the rain that runs down the street during a storm is fairly clean, it isn't. Harmful substances that wash off roads, parking lots, and rooftops can harm our rivers and lakes.

Task 7. Answer the questions on the text in writing. Be ready to discuss them.

- 1 Why is wastewater treatment considered as a water use?
- 2 How much wastewater and sewage is produced every day?
- **3** What does wastewater include?

Task 8. Match the left and the right side to make word combinations and translate them into your native language.

•	$\boldsymbol{\mathcal{O}}$	$\boldsymbol{\mathcal{O}}$			
wastewater				a	plants
treatment				b	treatment
human				c	substances
harmful				d	water
used				e	waste
	treatment human harmful	treatment human harmful	treatment human harmful	treatment human harmful	treatment b human c harmful d

		ropriate word or ption. Translate	-	_	
1	co	onsists of applying	g known technol	ogy to improv	ve or upgrade th
	quality of a was				10
2	Sewage	are the f	acilities designe	d to receive	the waste from
	domestic, comm	nercial and industr	ial sources.		
3	is	a waste type usua	lly used to refer t	o byproducts	of digestion.
4	Every business	has a responsibil	ity to its worker	s, customers	and the public to
		m harmful effects			
5	is	collected through	a network of sev	verage pipes t	that leads directly
	to the water recl	amation plants.			
	-	the sentences wit			
	chosen option. T	Translate the par	agraph into you	r native lang	guage.
	chosen option. T treatment plan	Translate the par	agraph into you <i>standard</i>	r native lang <i>contamina</i>	guage. <i>ints reuse</i>
	chosen option. I treatment plan ystems	Translate the par ets sewage location	agraph into you standard popularity	r native lang contamina plant	guage. unts reuse Pipes
the	chosen option. T treatment plan ystems To make wa	Translate the par ets sewage location astewater accepta	agraph into you standard popularity able for (1)	r native lang contamina plant or for a	guage. unts reuse Pipes returning to the
env	chosen option. To treatment plant ystems To make waronment, the cor	Translate the parets sewage location astewater acceptancentration of (2)_	agraph into you standard popularity ble for (1) must be re	r native lang contamina plant or for a	guage. unts reuse Pipes returning to the
env	chosen option. To treatment plant ystems To make wateronment, the correct set by the I	Translate the parets sewage location astewater acceptancentration of (2)_Environment Ager	agraph into you standard popularity able for (1) must be rency.	r native lang contamina plant or for a duced to a saf	guage. Ints reuse Pipes returning to the fe level, usually
env: (3)_	chosen option. To treatment plant ystems To make wateronment, the correct set by the Hamiltonian can	Translate the parets sewage location astewater acceptancentration of (2)_Environment Ager be treated close to	agraph into you standard popularity able for (1) must be reacy. o where it is created agraph.	contaminative lang contamination plant or for a duced to a sate attention septime.	tuage. Ints reuse Pipes returning to the fe level, usually and their
env: (3)_ asso	chosen option. To treatment plant ystems To make was ronment, the cormulation set by the Hamiltonian can be detailed.	Translate the parates sewage location astewater acceptancentration of (2)_Environment Ager be treated close to so sewage (5)_	agraph into you standard popularity ble for (1) must be reacy. o where it is cre plants), or o	contaminative lang contamination plant or for a duced to a sate attention and collected and	tuage. Ints reuse Pipes returning to the fe level, usually a second their transported via
env: (3)_ assonetv	chosen option. To treatment plant ystems To make wateronment, the correct set by the Factor (4) can be cated drainfield work of (6)	Franslate the parets sewage location astewater acceptancentration of (2)_Environment Ager be treated close to sor sewage (5) and pump state	agraph into you standard popularity able for (1) must be reacy. o where it is cre plants), or o ions to a munic	contamination plant plant or for a duced to a sate atted (in septiment) collected and being a line at the collected and being at the collected at th	returning to the fe level, usually and their transported via and their transported. The
env: (3)_ assonety form	chosen option. To treatment plant ystems To make was ronment, the core set by the Head of the deciated drainfield work of (6) are system is gain.	Franslate the parents sewage location astewater acceptancentration of (2)_Environment Agents be treated close to sor sewage (5) and pump statining (8) for the sewage (5) for the sewage (5) and pump statining (8) for the sewage (5) for the sewage (5) and pump statining (8) for the sewage (5) for the sewage (5) and pump statining (8) for the sewage (5) for th	agraph into you standard popularity ble for (1) must be reacy. o where it is creaming plants), or one ions to a municar many new economic standard many	contamination plant plant or for a duced to a sate atted (in septiment) collected and sipal treatment.	returning to the fe level, usually attransported via the fermion of the fermion of the fermion of the fermion of the cost of t
env: (3)_ assonetv formai	chosen option. The treatment plant ystems To make wateronment, the correct set by the Head of the control of t	Franslate the parets sewage location astewater acceptancentration of (2)_Environment Ager be treated close to sor sewage (5) and pump state	agraph into you standard popularity able for (1) must be reconcy. o where it is creations to a municular many new econcy transport it to a	contaminative lange contamination plant or for a duced to a satisfacted (in septiment collected and sipal treatment towns, as 60 central (9)	returning to the fe level, usually attransported via ante (7) The cost of and it is no and it is not an and it is not an analysis and an analysis and an analysis and an analysis and an analysis a

Task 1. Define and underline the active or passive forms of the Infinitive. Translate the sentences into your native language.

- 1 They claim not to have been polluting the water body in the vicinity of the community.
- 2 They are ashamed to have polluted the only water body in the vicinity of the community.
- 3 The waters in the oceans, rivers, and lakes need to be kept unpolluted.
- **4** The waters in the oceans, rivers, and lakes are claimed to have been polluted severely.
- 5 They are believed to be polluting the water body in the vicinity of the community.
- **6** We need to keep the waters in the oceans, rivers, and lakes unpolluted.

Task 2. Define and underline the Subjective or Objective Infinitive Constructions. Translate the sentences into your native language.

- 1 We prefer the water damage experts to test methods for proper sewage removal and treatment.
- 2 They are said to use domestic water for indoor and outdoor household purposes.
- 3 They made us wear protective gear and masks to make sure we do not come into contact with the toxic fumes that sewage released.
- 4 Water seems to be present in abundant quantities on and under the Earth's surface.
- 5 They have their eyes and skin protected from the touch of the raw sewage.
- 6 In many locations the availability of good-quality water is likely to be reduced because of urban development, industrial growth, and environmental pollution.

Task 3. Define participial phrases and Nominative Absolute Participial Constructions. Translate the sentences into your native language.

- 1 Drinking the tap water being avoided because of pollutants, you may be getting them every time you take a shower.
- **2** Canadian Clear is a single source manufacturer offering totally integrated water treatment solutions.
- 3 People understanding all of the pollutants contained in their water, they would not be so passive about the situation or mind taking the extra precautions.
- 4 Sanitary sewers serving industrial areas also carry industrial wastewater

Task 4. Match the beginnings and endings to make conditional sentences. Define and underline the tense forms of the Conditionals. Translate the sentences into your native language.

- 1 If they had the space and money,
- 2 If the sewage is properly treated on- **b** site.
- 3 If a house had been on the "city" water **c** system,
- **a** a hook-up to the sewerage system is unnecessary.
 - there would have been a pipe entering the building somewhere.
 - they could install a rainwater harvesting system at your house.

Task 5. Define the type of the clause in the following complex sentences. Translate the sentences into your native language.

- 1 The question is how to develop technical guidance materials for assessing the quantities and types of waste produced in different facilities.
- 2 That chemical tests identify impurities and other dissolved substances that affect water used for domestic purposes is important.
- 3 If you receive a high water bill, a good place to start the leak detection procedure is at the water meter.
- **4** The effects of water pollution strongly impact the balance of nature, which ultimately impacts all humans.
- **5** Bacteriological tests are used to determine if water is bacteriologically safe for human consumption.

Task 6. Read the text and be ready to translate the passage orally.

Wastewater in the simplest of terms is used water. This can be water contained in the waste products of industry, domestic water use from residential, commercial and industrial uses and storm runoff.

Of special note is that storm runoff here is meant as runoff in urban areas with lots of asphalt and other hard surfaces, littered with oils, metals and other trash and contaminants. This seemingly benign water is actually a public and environmental health hazard.

All of this wastewater contains various types and quantities of contaminants, unhealthy contaminants for the most part, and should be treated to allow safe disposal or reuse. Wastewater treatment removes these contaminants from the used water.

Economic reality sometimes prevents the proper treatment of wastewater, creating the conditions for pollution of lakes, streams, soils and groundwater. Part of what we do is make wastewater treatment available in a cost effective way.

The primary purpose of wastewater treatment is public safety and environmental health.

In many countries there are stringent rules regarding discharge of effluents and wastewater, rules designed to protect the public safety and environment.

Preventing pollution is a powerful incentive for wastewater treatment, as the benefits are not only cultural and social but help sustain a human friendly environment for the long-term.

Task 7. Answer the questions on the text in writing.

- 1 What does wastewater include?
- **2** What is the purpose of wastewater treatment?
- **3** What a powerful incentive for wastewater treatment?

Task 8. Match the left and the right side to make word combinations and translate them into your native language.

1 domestic2 storma runoffb water

	5	wastewater		e	contaminants	
						complete each sentence
						native language.
1		-		red and used	for households	is an important aspect
	of _		supplies.			
2		is	rainfall that fl	lows over the	ground surface	··
3	The	effects of s	ome	in drink	ing water are n	ot well understood, but
						lth will be harmed.
4		_			-	with all aspects of the
			t environment	-		1
5		CO	onsists of appl	lving known	technology to i	mprove or upgrade the
		lity of a was		-78		
	1	J				
Tasi	k 10.	Complete	the sentences	with the cor	rect words fro	m below and underline
		_			nto your nativ	
uic		_			process	
	gaa	ılıy	minimiza	oil	importa	nt reservoir
(1)				•		or from the treatment
						_ to treat the crude are
					-	ains oil to some degree.
_		-		us (4)	there are speci	ific requirements to the
$(5)_{-}$		_ of this wat				
						in order to sustain the
pres	sure	in the oilfi	eld it is not s	o (7) ł	ow much oil is	s still in this water. Of
cour	se a	ll the (8)	which is	going back in	the reservoir	is oil which can not be
sold	or p	processed, so	o there is an i	nterest to (9)	the oil o	content in this water as
well	_					
	V	ery often the	e effluent wat	er is dumped	l in the (10)	or nearby rivers or
lake		J		•	, ,	•

c healthd treatment

3 unhealthy4 environmental

Task 1. Define and underline the active or passive forms of the Infinitive. Translate the sentences into your native language.

- 1 They claim to have been treating and recycling water in a healthy and ecological manner lately.
- 2 They claim to have treated and recycled water in a healthy and ecological manner.
- 3 The water has to be effectively treated and recycled in a healthy and ecological manner.
- 4 The water is claimed to have been effectively treated and recycled.
- 5 They seem to be treating and recycling water in a healthy and ecological manner.
- **6** They plan to effectively treat and recycle water in a healthy and ecological manner.

Task 2. Define and underline the Subjective or Objective Infinitive Constructions. Translate the sentences into your native language.

- 1 The householders want their sewage systems not to be neglected.
- 2 Ancient aqueducts and pipelines were known to withstand not so much pressure.
- 3 We prefer the water damage experts to stop the septic tank overflow.
- **4** There is a range of water filtration and purification products that are likely to improve the quality of your drinking water.
- 5 They expect the householders to contact the water company when the emergency occurs.
- **6** The occupants of a new building seem to be satisfied with the plumbing system.

Task 3. Define participial phrases and Nominative Absolute Participial Constructions. Translate the sentences into your native language.

- 1 With not using much or any salt and other seasonings, your need for drinking water goes down even further.
- 2 The main problem caused by water pollution is that it kills life that inhabits water-based ecosystems.
- 3 Water for your daily water needs being of vital importance, then you may want to improve your water quality.
- 4 There are hundreds of publications each year highlighting the water contamination problem.

Task 4. Match the beginnings and endings to make conditional sentences. Define and underline the tense forms of the Conditionals. Translate the sentences into your native language.

- 1 If a company needs to interrupt a supply **a** then you would have shut off the system. of water,
- 2 If you had been repairing or modifying **b** a community could run out of water. the plumbing supply system,
- ${f 3}$ If the local water supply was not ${f c}$ it must give reasonable notice. properly managed,

Task 5. Define the type of the clause in the following complex sentences. Translate the sentences into your native language.

- 1 Municipalities and water companies know they can enforce water use restrictions on their users or customers, especially in the months of drought.
- 2 Our system transports wastewater away from the waterways to treatment plants that return clean water to the environment.
- **3** The issue is how to provide an overview about healthcare waste and its proper management.
- **4** That the quality of drinking-water is a powerful environmental determinant of health is obvious.
- 5 To avoid additional water use charges or restrictions, the task of water conservation falls to the users themselves.

Task 6. Read the text and be ready to translate the passage orally.

Wastewater treatment is the safe removal of contaminants from the waste water or waste stream and their disposal. The key here is safety.

Treating wastewater alone is not enough. You must also safely dispose the resulting solid wastes and, hopefully, reuse the treated waste water or safely discharge the wastewater. This seems simple, however, the solids may contain high levels of unsafe contaminants that cannot simply be land filled. Our process encapsulates these contaminants rendering them harmless, or recoverable.

The level to which you remove the contaminants, or treat the wastewater, will vary depending on discharge requirements, what the contaminants are, and whether you are planning to recycle the. Industrial wastewater should be treated to a level affording waste water reuse and safe disposal of the solids. This is an achievable objective for any user.

One should realize the common distinction between industrial wastewater treatment and wastewater treatment. Wastewater treatment as a term is often associated with sewage treatment, whereas the waste water resulting from the myriad industries world wide, with special wastewater treatment considerations and needs, is usually described by the term industrial wastewater treatment.

Task 7. Answer the questions on the text in writing.

- 1 What is the main point in wastewater treatment, its reuse, disposal and discharge?
- 2 What does the level of the contaminants removal depend on?
- What is the common distinction between industrial wastewater treatment and wastewater treatment?

Task 8. Match the left and the right side to make word combinations and translate them into your native language.

1 removal

2 high levels

3 safe disposal

4 sewage

5 discharge

a of unsafe contaminants

b of contaminants

c treatment

d requirements

e of the solids

Tas	sk 9. Use an appropriate word or phrase from Task 8 to complete each sentence
and	d underline the option. Translate the sentences into your native language.
1	The of emerging from municipal wastewater is now possible with
	an integrated membrane system, MBR-RO.
2	When you care for yourself, your family, home, car, yard, and garden, you
	should avoid of in the waste water.
3	The overall philosophy of wastewater sanitation involving of is important.
4	In Malaysia, 38% of public plants in the country are mechanical
	plants.
5	identify specific measures that should be applied to all industrial
	users or nondomestic sources of wastewater.
the	chosen option. Translate the paragraph in writing into your native language. substances wastewater treatment solids primary
	collection tank waste separate processes
	In (1) treatment, wastewater is pumped into a large tank where the heavy
$(2)_{-}$	are allowed to settle.
	In the secondary (3) process, bacteria and oxygen are added to primary-
trea	ated (4) to further remove biological waste.
	Tertiary treatment removes specific (5) of concern after secondary
trea	atment using a number of physical, chemical or biological (6) Septic
•	4
was	tems consist of a buried tank that holds wastewater long enough to (7) solid
	ste from liquid (8) While bacteria continue to decompose solids in the
sep	ste from liquid (8) While bacteria continue to decompose solids in the otic tank, the wastewater exits the (9) and enters the drain field where the soil
sep furt	ste from liquid (8) While bacteria continue to decompose solids in the

Task 1. Define and underline the active or passive forms of the Infinitive. Translate the sentences into your native language.

- 1 They claim to have been turning their own sewage into clean, drinking water lately.
- 2 They claim to have turned their own sewage intd clean, drinking water at last.
- **3** (Indefinite Passive)=They hope their own sewage to be turned into clean, drinking water.
- 4 Their own sewage is believed to have been turned into clean, drinking water.
- 5 They seem to be turning their own sewage into clean, drinking water.
- **6** They plan to turn their own sewage into clean, drinking water.

Task 2. Define and underline the Subjective or Objective Infinitive Constructions. Translate the sentences into your native language.

- 1 They believe many sewage spills and overflows to be prevented.
- **2** Water softeners are known to lessen the magnesium, calcium, manganese and ferrous iron in hard water.
- **3** The water damage experts suppose the householders to be informed at the first signs of a sewerage failure.
- **4** *Eddy* seems to be the most cost effective and environmentally friendly solution to your hard water problems.
- 5 We want our area's water quality to be improved.
- **6** An expert is sure to evaluate the building water systems and provide specific recommendations for minimizing stagnation in domestic water systems.

Task 3. Define participial phrases and Nominative Absolute Participial Constructions. Translate the sentences into your native language.

- 1 A filtration system being used to improve water quality, you must regularly maintain it.
- 2 The plastics industry, blamed for some of the worst pollution of the water, is making its products degradable.
- **3** There are several types of water pollution ranging from sewage and fertilizers to soil erosion.
- 4 Contaminated water having entered the ground, there may be serious effects.

Task 4. Match the beginnings and endings to make conditional sentences. Define and underline the tense forms of the Conditionals. Translate the sentences into your native language.

- 1 If normal osmosis had taken place,
- 2 If rain water is not collected,
- 3 If a water supply was to be connected **c** to a property,
- **a** it drains into the waste water system.
- **b** the company would be entitled to make charges.
- the fresh water would have crossed the membrane to dilute the concentrated solution.

Task 5. Define the type of the clause in the following complex sentences. Translate the sentences into your native language.

- **1** A major area of work is how to adapt the methods to be appropriate for use at the national scale.
- 2 That freshwater is limited and its quality is under constant pressure is obvious.
- **3** Organic wastes, suspended solids, bacteria, nitrates, and phosphates are pollutants that commonly must be removed.
- 4 As water resources are depleted, overuse of existing supplies often occurs.
- 5 Water use restrictions are decided by municipalities or water suppliers and dictate both when and how households may use their water.

Task 6. Read the text and be ready to translate the passage orally.

Every day, millions of cubic metres of sanitary sewage are flushed from homes, businesses, institutions and industries through sink drains and toilets into city sewer systems. Municipal wastewater contains sanitary sewage and is sometimes combined with stormwater from rain or melting snow draining off rooftops, lawns, parking lots and roads. The sewer system either takes the wastewater to a municipal wastewater treatment plant or releases it directly into a lake, river or ocean.

Municipal wastewater is one of the largest sources of pollution, by volume, to surface water in any area. Municipal wastewater normally receives treatment before being released into the environment. The higher the level of treatment provided by a wastewater treatment plant, the cleaner the effluent and the smaller the impact on the environment. Despite treatment, pollutants remain in treated wastewater discharged into surface waters. Treated wastewater may contain grit, debris, biological wastes, disease-causing bacteria, nutrients, and hundreds of chemicals such as those in drugs and in personal care products like shampoo and cosmetics.

Much of the population is served by wastewater collection and treatment systems; however, the level of treatment applied to wastewater prior to discharge varies widely.

Task 7. Answer the questions on the text in writing.

- 1 Where is sanitary sewage flushed into?
- **2** What is municipal wastewater the source of?
- 3 What pollutants can remain in treated wastewater?

Task 8. Match the left and the right side to make word combinations and translate them into your native language.

	· ·	_	_		
1	sanitary			a	system
2	sewer			b	sewage
3	municipal			c	waters
4	surface			d	wastes
5	biological			e	wastewater

Tasl	k 9. Use an app	propriate word	l or phrase from	Task 8 to con	inpiete each sentence
and	underline the o	ption. Transla	ate the sentence	s into your n	ative language.
1	The municipality	ties found it ne	cessary to treat t	he	to abate pollution
	in the receiving				
2	A combined	was	s designed to dry	out streets by	collecting rainwater
					and industrial waste-
	water all in the	•	•	ŕ	
3			nnology and des	sign, treating	could
			on's total availabl		
4	•				ves the quality of our
			lps to control flo		1 7
5					they may have been
		-	-	•	J
	contaminated w	ith intectious o	organisms or age	nts.	
	contaminated w	ith infectious o	organisms or age	nts.	
Tasl					below and underline
	k 10. Complete	the sentences	with the correct	words from	below and underline anguage.
	k 10. Complete chosen option.	the sentences Franslate the j	with the correct paragraph into	words from your native l	anguage.
	k 10. Complete chosen option. I high	e the sentences Franslate the p collection	with the correct paragraph into system	words from your native l	anguage. <i>domestic</i>
	k 10. Complete chosen option. I high outside	e the sentences Franslate the p collection volume	with the correct paragraph into system centralized	words from your native l city pumping	anguage. <i>domestic</i> increase
the	k 10. Complete chosen option. The high outside (1) was	the sentences Franslate the p collection volume ste water man	with the correct paragraph into system centralized nagement system	words from your native l city pumping n of any (2	anguage. domestic increase 2) consists of
the colle	k 10. Complete chosen option. The high outside (1) was ection, treatments.	e the sentences Franslate the pollection volume ste water mand disposa	with the correct paragraph into system centralized nagement system	words from your native less than the city from ping of any (2) and centralize	anguage. domestic increase 2) consists of ed sewage treatment
colle (3)_	k 10. Complete chosen option. The high outside (1) was ection, treatmen, about 80%	the sentences Franslate the p collection volume ste water man and disposa of of the cost is	with the correct paragraph into system centralized nagement system l. In convention accounted for the	words from your native leading city multiple pumping multiple of any (2 and centralize de (4) The control of the control	anguage. domestic increase 2) consists of ed sewage treatment The cost of collection
colle (3)_ of (k 10. Complete chosen option. The high outside (1) was ection, treatmen about 80% 4)sewage and in the chosen option.	the sentences Franslate the p collection volume ste water man at and disposa of the cost is ts conveyance	with the correct paragraph into system centralized nagement system l. In convention accounted for the to the terminal	words from your native leading of any (2) and centralize the (4) The point in the	anguage. domestic increase 2) consists of ed sewage treatment The cost of collection large cities is very
colle (3)_ of (5)_	k 10. Complete chosen option. The high outside (1) was ection, treatmen, about 80% 4)sewage and it Further, the chosen option of the high outside	the sentences Franslate the p collection volume ste water man at and disposa of of the cost is ts conveyance the depth of sev	with the correct paragraph into system centralized nagement system 1. In convention accounted for the to the terminal wer goes on increase.	words from your native leasing with the words	anguage. domestic increase 2) consists of ed sewage treatment The cost of collection large cities is very the (6) of length
colle (3)_ of (5)_ of s	k 10. Complete chosen option. This high outside (1) was ection, treatmen, about 80% 4)sewage and in Further, the wer line and (the sentences Franslate the p collection volume ste water man and disposa of the cost is ts conveyance the depth of sev 7) of the	with the correct paragraph into system centralized nagement system. In convention accounted for the to the terminal wer goes on increes sewage at the	words from your native leasing with the words from your native leasing with the words from your native leasing with the intermediate	anguage. domestic increase 2) consists of ed sewage treatment The cost of collection large cities is very le (6) of length and terminal points
colle (3)_ of (5)_ of s	k 10. Complete chosen option. The high outside (1) was ection, treatmen, about 80% (4) sewage and in Further, the wer line and (tires a lot of entitles)	the sentences Franslate the p collection volume ste water man at and disposa of of the cost is ts conveyance the depth of sev 7) of the theregy. In (8)	with the correct paragraph into system centralized nagement system l. In convention accounted for the to the terminal wer goes on incre e sewage at the sewage wa	words from your native leasing with the intermediate	anguage. domestic increase 2) consists of ed sewage treatment The cost of collection large cities is very the (6) of length

APPENDIX 1

GENERAL CLASSIFICATION OF THE PARTS OF SPEECH IN ENGLISH

The parts of speech differ from each other in meaning, form and function.

We distinguish between *notional* and *structural* parts of speech.

The *notional* parts of speech perform certain functions in the sentence: the functions of subject, predicate, attribute, object, or adverbial modifier.

The *notional parts of speech* are as follows:

1	the noun	_	іменник	_	существительное
2	the adjective	_	прикметник	_	прилагательное
3	the pronoun	-	займенник	_	местоимение
4	the numeral	_	числівник	_	числительное
5	the verb	_	дієслово	_	глагол
6	the adverb	-	прислівник	_	наречие
7	the modal verbs	_	модальні дієслова	_	модальные глаголы
8	the interjection	_	вигук	_	междометие
9	the participle	_	дієприкметник	_	причастие
10	the possessive	_	присвійний		притяжательное
	pronooun		займенник		местоимение
11	ing-form	_	дієприсливник	_	деепричастие
12	the gerund	_	герундій	_	герундий
13	the infinitive	_	інфінітив	_	инфинитив

The *notional* parts of speech serve either as *principal* or *secondary* parts of the sentence.

The *structural parts of speech* either express *relations* between words (e.g. the trees in the garden, Tom and Joe, etc.) or sentences or *emphasize the meaning* of words (e.g. the book, a book, etc.) or sentences. They never perform any independent function in the sentence. Here belong:

1	the preposition	_	прийменник	_	предлог
2	the conjunction	_	сполучник	_	союз
3	the particle	_	частка	_	частица
4	the article	_	артикль	_	артикль

In the English language the grammatical relations between words are expressed by means of thr form of words and word order: e. g. a map of the location.

The principal	<u>parts of the sentence</u>	<u>:</u>	
The subject	– підмет		подлежащее
The predicate	– присудок	_	сказуемое
The secondary p	arts of the sentence:		
The object	– додаток	_	дополнение
The attribute	– визначення		определение
The adverbial modifier	– обставина	_	обстоятельство

APPENDIX 2

	HE COMPLEX ENTENCE		кладнопідрядне ечення		ложноподчиненное оедложение
-	with a subject clause	-	с підрядним реченням підметом	-	с придаточным предложением подлежащим
-	with a predicative clause	-	з підрядним реченням присудком	_	с придаточным предложением сказуемым
-	with an attributive clause	_	з підрядним реченням визначення	_	с придаточным определительным предложением
-	with an adverbial clause of place	_	з підрядним реченням обставини міста	_	с придаточным обстоятельственным предложением места
_	with an adverbial clause of time	_	з підрядним реченням часу	_	с придаточным обстоятельственным предложением времени
-	with an adverbial clause of manner	-	з підрядним реченням способу дії	_	с придаточным предложением образа действия
_	with an adverbial clause of comparison	_	з підрядним реченням порівняння	_	с придаточным обстоятельственным предложением сравнения
_	with an adverbial clause of concession	_	з підрядним реченням поступки	_	с придаточным обстоятельственным предложением уступки
-	with an adverbial clause of purpose	-	з підрядним реченням мети	_	с придаточным обстоятельственным предложением цели
-	with an adverbial clause of cause	-	з підрядним реченням причини	-	с придаточным обстоятельственным предложением причины
_	with an adverbial clause of result (consequence)	-	з підрядним реченням результату (слідства)	-	с придаточным обстоятельственным предложением результата (следствия)

Зміст

Методичні рекомендації для студе		
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НАВЧАЛЬНЕ ВИДАННЯ

Методичні вказівки до виконання самостійної та контрольної роботи з дисципліни

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