

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ  
ОДЕСЬКИЙ ДЕРЖАВНИЙ ЕКОЛОГІЧНИЙ УНІВЕРСИТЕТ

МЕТОДИЧНІ ВКАЗІВКИ  
до СРС та виконання  
контрольної роботи №2  
з англійської мови  
для студентів II курсу  
заочної форми навчання  
Напрямок підготовки – комп'ютерні науки

"Затверджено"  
робочою групою методичної  
ради "Заочна та післядипломна освіта"

Одеса-2014

МЕТОДИЧНІ ВКАЗІВКИ до СРС та виконання контрольної роботи №2 з англійської мови  
для студентів II курсу заочної форми навчання.  
Напрямок підготовки – комп'ютерні науки

Укладачі: Попович І.І., Янко І.Б. - Одеса - ОДЕКУ, 2014 р., 57 с.

## 1. ПЕРЕДМОВА

Нормативна дисципліна "Англійська мова" відноситься до гуманітарного циклу освітньо-кваліфікаційного рівня бакалавр і є складовою частиною загальноосвітньої підготовки студентів ОДЕКУ. Практичне володіння англійською мовою є невід'ємним органічним компонентом сучасної підготовки спеціалістів вищими навчальними закладами. Іноземна мова у вищому навчальному закладі являє собою самостійний курс, який має свій зміст та структуру. Загальний обсяг навчального часу для II курсу за фахом «комп'ютерні науки» визначається робочим навчальним планом та становить 8 годин практичної та 86 годин самостійної роботи.

Мета вивчення іноземної мови у немовному вузі - підготувати студента до читання літератури за фахом, спілкування англійською мовою в різних видах мовної діяльності, можливості її використання у практичних цілях.

Загальноосвітнє значення вивчення англійської мови визначається тим, що:

1. порівняння двох мовних систем - рідної та іноземної мови - поглиблює філологічні знання студента, змушує більш вдумливо ставитись до явищ рідної мови;
2. вивчення іноземної мови сприяє розвитку пізнавальної та розумової активності студента;
3. отримана іноземною мовою інформація містить різноманітні факти наукового суспільно-політичного та країнознавчого характеру, що допомагає студентові розширювати кругозір.

Загальноосвітня цінність вивчення іноземної мови усвідомлюється студентами за умови правильної організації зв'язків між курсом іноземної мови та спеціальними дисциплінами. У процесі навчання іноземної мови усі види мовної діяльності (читання, мовлення, аудіювання) тісно пов'язані між собою, хоча їх співвідношення на різних етапах навчання різне, що зумовлено метою та умовами навчання, а також відносною складністю видів мовної діяльності, що виконується.

Практична значимість вивчення англійської мови у вищому навчальному закладі полягає в тому, що володіння англійською мовою є:

- ознакою високого професійного та інтелектуального рівня фахівця;
- можливістю проходження виробничої практики за кордоном;
- можливістю навчання та стажування у закордонних вищих навчальних закладах;
- пріоритетним працевлаштуванням;
- необхідністю користування Internet

В результаті вивчення дисципліни "Англійська мова" студенти повинні знати особливості фонетичної, граматичної, морфологічної,

синтаксичної структури англійської мови, відповідну спеціальну лексику за фахом.

Після вивчення дисципліни „Англійська мова” студент має вміти:

- читати, перекладати та реферувати оригінальну літературу за фахом для отримання необхідної інформації;
- брати участь в усному спілкуванні іноземною мовою в обсягу матеріалу, передбаченого програмою.

У процесі досягнення практичної мети здійснюються освітні та виховні завдання навчання іноземної мови.

Контроль поточних знань виконується на базі кредитно-модульної системи організації навчання. Підсумковим контролем є *залік*.

## 2. ЗМІСТ РОЗДІЛУ

### Вступ

В умовах значного розширення міжнародних зв'язків України знання іноземних мов спеціалістами різних галузей науки набувають особливого значення. Одне з головних завдань яке ставиться перед студентами вищих закладів освіти України є практично - комунікативне володіння іноземною мовою на професійному та побутовому рівнях. В процесі практичного володіння іноземною мовою основний наголос робиться на усне мовлення як основну виховну форму мовленнєвої діяльності. Письмове мовлення — читанням і письмом студенти оволодівають вже на базі засвоєного усного мовлення. Усне мовлення є не тільки метою навчання, але є засобом досягнення цієї мети.

Навчання усім видам мовленнєвої діяльності ведеться комплексно. Усі відомості теоретичного характеру з фонетики\* техніки читання та перекладу, граматики даються в процесі практичної роботи в об'ємі потрібному для набування студентами відповідних умінь і навичок.

Значна увага в навчальному процесі впродовж всього курсу приділяється в постановці вимови, особливо інтонації.

Граматична система іноземної мови засвоюється студентами за допомогою граматичних структур усного і письмового мовлення. Порядок подання граматичних структур визначається послідовністю поступового ускладнення матеріалу і залежності його від попереднього матеріалу.

Лексика - слова, словосполучення і вирази засвоюються в мовленні в їх природному матеріалі.

Вільне спілкування іноземною мовою можливо лише коли студенти будуть мислити цією мовою. Тому розвиток мислення іноземною мовою є важливим завданням практичного курсу, що забезпечується численними, різноманітними мовними оригінальними вправами і створення мовної

атмосфери на заняттях поза аудиторний час.

**Знання:**

- вимови усіх звуків англійської мови на рівні комунікативної достатності (рівень розбірливості для усного спілкування) та основними інтонаційними моделями;
- закономірностей англійської мови у співставленні її з діловою українською мовою;
- фонетичного, граматичного, лексичного, морфологічного, синтаксичного мінімуму передбаченого програмою кафедри іноземних мов ОДЕКУ з англійської мови.

**Вміння:**

- вести бесіду на основі типових ситуацій ділового спілкування, у зв'язку з прочитаним або прослуханим;
- робити повідомлення на основі типових ситуацій ділового спілкування, а також висловлюватися з приводу прочитаного або прослуханого;
- самостійно читати (зі словником) суспільно-політичні, науково-популярні тексти, а також за фахову літературу;
- сприймати на слух при безпосередньому спілкуванні та у звукозапису тексти побудовані в основному на засвоєному мовному матеріалі.

**Структура дисципліни „Англійська мова”.** Розподіл граматичного і лексичного матеріалу в межах семестру, кількості годин, які необхідні для засвоєння певних граматичних і лексичних тем студентами заочного відділення II курсу, визначається кафедрою іноземних мов у робочих навчальних планах на основі програми з іноземних мов. Вивчення курсу розраховане на 94 години, із них 8 годин аудиторних занять, 86 годин на самостійну роботу студентів.

Для виконання контрольних робіт треба вивчити такі теми II курсу заочної форми навчання:

1. Особливості умовних речень в англійській мові (I, II, III типів речень).
2. Інфінітив та дієприкметник, їх складні форми.
3. Звороти, які рівнозначні додатковим реченням: об'єктний інфінітивний, суб'єктний інфінітивний, незалежний (самостійний дієприкметниковий зворот).
4. Граматичні функції дієслів *should* і *would*.
5. Звороти з інфінітивом, дієприкметником і герундієм, які рівнозначні реченням додатковим.
6. Різні значення слів: *only, both ...and, either... or, neither...nor, as, because of, or,*

*since, due, provided, with respect to, no matter.*

## ДИСТАНЦІЙНА ФОРМА НАВЧАННЯ

Згідно з вимогами покращення навчального процесу та впровадження нових видів та форм навчання, які, серед іншого, мають на меті використання його дистанційної форми, студенти мають можливість виконувати та надсилати контрольну роботу частинами згідно з нижче наведеним графіком.

### Графік виконання контрольної роботи

- I завдання – вересень-жовтень;
- II завдання – листопад;
- III завдання – грудень;
- IV завдання – січень;
- V завдання – лютий;
- VI завдання – березень;
- VII, VIII завдання – квітень.

## ОРГАНІЗАЦІЯ ПОТОЧНОГО ТА ПІДСУМКОВОГО КОНТРОЛЮ ЗНАТЬ

Поточна та підсумкова оцінка знань студентів здійснюється за модульно-накопичувальною системою. Максимальна сума балів, яку може набрати студент II курсу, складає 100 балів, з них за міжсесійну контрольну роботу №2 - 80 балів, за аудиторні роботи при проведенні занять протягом сесії - 20 балів.

Кожний варіант контрольної роботи складається з **8** завдань. Кожне завдання оцінюється кількістю балів в залежності від його складності: I завдання – 40 балів; II завдання – 10 балів; III - VIII завдання – по 5 балів кожне. Усього – 80 балів. Вона зараховується, якщо студент отримав не менше ніж 48 балів.

Накопичена підсумкова оцінка (**ПО**) (засвоєння студентом заочної форми навчання навчальної дисципліни) розраховується для дисциплін, що закінчується заліком за:

$$ПО = 0,5 (ОЗЕ + ОМ) ,$$

де:

**ОЗЕ** - кількісна оцінка (у відсотках від максимально можливої) заходів контролю СРС під час проведення аудиторних занять;

**ОМ** - кількісна оцінка (у відсотках від максимально можливої) заходів

контролю СРС у міжсесійний період.

Підсумковим контролем є **залік**, який полягає в оцінці засвоєння студентом навчального матеріалу (вмінь та навичок) виключно на підставі кількісної оцінки результатів виконання ними видів робіт на аудиторних заняттях, передбачених робочою навчальною програмою дисципліни та за умови виконання міжсесійних контрольних робіт та аудиторного опитування **не менше ніж на 60%** за кожен з видів занять.

#### **Шкала переходу від оцінки поточного контролю до підсумкової оцінки**

Інтегральна сума балів	Якісна оцінка з заліку
<60% від максим. можливої	не зараховано
>60% від максим. можливої	зараховано

#### **ОРГАНІЗАЦІЯ ПРАКТИЧНИХ ЗАНЯТЬ**

Після практичних модулів студенти повинні оволодіти наступними базовими вміннями та знаннями:

- охарактеризувати умовний спосіб в англійській мові;
- пояснити структуру та особливості вживання трьох типів речень в умовному способі;
- пояснити вживання інфінітива та його форм в англійській мові;
- пояснити вживання дісприкметникових зворотів в англійській мові;
- читати, перекладати та переказувати тексти суспільно-політичної тематики;
- читати, перекладати та переказувати тексти за фахом.

## CONTROL TEST 2

Щоб вірно зробити завдання № III-VIII , треба засвоїти розділи курсу англійської мови:

1. Умовні речення та речення з «**I wish**» (вправа III).
2. Граматичні функції дієслів **should, would** (вправа IV).
3. Звороти з інфінітивом, дієприкметником і герундієм, які рівнозначні додатковим реченням (вправи V-VII).
4. Різні значення слів: **only, both ...and, eith er... or, neither...nor, as, because of, or, since, due, provided, with respect to, no matter** (вправа VIII).

Для виконання **вправи № VIII** використовуйте наведені нижче **зразки**.

### **FOR**

- |  |   |
|--|---|
| 1. Polymers are used <b>for</b> different purposes                     | 1. Полімери використовують <b>для</b> різних цілей                            |
| 2. <b>For</b> a long time polymers were used instead of metals         | 2. <b>Протягом</b> довгого часу полімери використовували замість металів      |
| 3. Plastics are of great importance <b>for</b> they can replace metals | 3. Пластики мають велике значення, <b>тому що</b> вони можуть замінити метали |

### **SINCE**

- |   |  |
|---|--|
| 1. <b>Since</b> the experiment is completed, let us see its results | 1. <b>Через те що</b> експеримент закінчено, давайте подивимось результати |
| 2. Man used metals <b>since</b> ancient times                       | 2. <b>З</b> давніх часів людина застосовувала метали                       |

### **BECAUSE**

- |  |   |
|--|---|
| 1. Plastics will be widely used in industry <b>because</b> they posses valuable properties | 1. Пластмаси будуть широко застосовуватись у промисловості, <b>тому що</b> вони мають цінні властивості |
| 2. Plastics find wide use in industry <b>because of</b> their cheapness                    | 2. Пластмаси знаходять широке застосування в промисловості  |



### AS

1. **As** an engineer you must know this technological process
2. **As** the chief engineer is here, we shall ask him to help us.
3. **As soon as** the chief engineer comes, we shall ask him to examine this device

4. The workers will take part in the conference **as well**
5. **As to** the chief engineer he can speak English

### DUE

1. Wide use of plastics is **due to** their cheapness
2. Plastics are widely used in engineering **due to** their good insulation properties

### PROVIDED

1. **Provided** automatic devices are used, we shall increase the labour productivity

### EITHER ...OR

1. You can apply **either** metal **or** plastics in this case

### NEITHER ...NOR

1. You can apply **neither** metal **nor** plastics in this case

### BOTH ...AND

1. You can apply **both** metal **and** plastics

### **внаслідок** своєї дешевини

1. **Як** інженер ви повинні знати цей технологічний процес
2. **Оскільки** головний інженер тут, ми просимо його допомогти нам
3. **Тільки-но** прийде головний інженер, ми попросимо його перевірити цей механізм

4. Робочі **також** приймуть участь у конференції
5. **Що стосується** головного інженера, він може говорити англійською.

1. Широке застосування пластмас **обумовлено** їх дешевиною
2. **Завдяки** хорошим ізоляційним властивостям пластмаси широко застосовуються в техніці

1. **Якщо** будуть застосовані автоматичні прилади, ми збільшимо продуктивність праці

1. У цьому випадку ви можете застосувати **або** метал, **або** пластмасу

1. У цьому випадку ви не можете застосувати **ні** метал, **ні** пластмасу

1. У цьому випадку ви можете

in this case

**ONLY**

1. He **only** examined the instrument
2. He is **the only** man who will be able to repair the instrument

**WITH RESPECT TO**

1. The information was given **with respect to** the new data

**NO MATTER**

1. **No matter** how long it takes, you should make the experiment at least three times.

застосувати **як** метал, **так і** пластмасу

1. Він **тільки** перевірів прилад
2. Він – **єдина** людина, яка може відремонтувати прилад

1. Інформація була надана, **враховуючи** нові дані

1. **Незалежно від** того, скільки це займе часу, ти повинен повторити цей експеримент щонайменше три рази

## VARIANT I

Отформатировано: Шрифт: полужирный

### I. Перепишіть та письмово перекладіть текст

Отформатировано: Шрифт: полужирный, русский

Отформатировано: русский

#### A LANGUAGE / ACTION BASED APPROACH TO INFORMATION MODELLING

Отформатировано: Шрифт: полужирный, английский (США)

Отформатировано: английский (США)

There are several different views of the role of information systems. Two of the most important are the data view and the communicative view. According to the data view, the primary purpose of an information system is to provide a model of a domain, thereby enabling people to obtain information about reality by studying the model. In this respect, an information system works as a repository of data that reflects the structure and behaviour of an ~~enter-prise~~~~enterprise~~, and the system provides data that can be used for decisions about the enterprise. In contrast, the communi-cative view states that the major role of an information system is to support communication within and between organisations by structuring and coordinating the ac-tions performed by organisational agents. The system is seen as a medium through which people can perform social actions, such as stating facts, making promises, and giving orders.

Отформатировано: английский (США)

The data and communicative views of information systems are mirrored by two different views of organisations: the functional view and the constructional view. The functional view focuses on the functions of an organisation with respect to its environ-ment, in particular, the resources that the organisation consumes and produces. A model of an organisation from a functional perspective is a black-box model, as it shows the interactions with the environment but not the internal mechanisms. The constructional view, on the other hand, focuses on how behaviour and function are brought about by the operations and structure of an organisation. A model of an organisation from a constructional perspec-tive is a white-box model as it shows the inner workings of the organisation.

In information systems design, the starting point has often been based on the data view and the functional view, though frequently augmented by concepts like reasoning and monitoring. However, these views easily lead to a computer- and technology- biased management of the communication taking place in an organisation, and they benefit from being complemented by the communi-cative and constructional views. A promising theoretical foundation for these views is the language/action ap-proach, which is based on theories from linguistics and the philosophy of language. In the language/action ap-proach, business actions are modelled on the notions of speech acts and discourses, which provide a basis for distinguishing between different communication phases, such as preparation, negotiation, and acceptance.

Отформатировано: английский (США)

Отформатировано: английский (США)

The most important applications of the language/action approach have been made in the area of business process management. A language/action perspective

provides a clear and well-founded basis for identifying and modelling recurring patterns in business processes. One such pattern is the order-execution-result (OER) pattern, which models a basic form of interaction that occurs in every business process.

The language action approach influenced another recent trend in the information systems community, agent-oriented information systems. The language/action approach can be seen as one of the most active traditions within agent-oriented information systems. Agent concepts offer high-level abstractions addressing issues such as knowledge representation, communication, coordination, and cooperation among heterogeneous and autonomous parties.

One of the most comprehensive approaches to agent-oriented information systems is agent-object-relationship, which is based on the notions of agents, events, actions, claims, and commitments. These notions form the basis for a general meta-model that can be used as a foundation for any information system.

The language/action approach to information modelling and systems provides a solid theoretical framework for analysing and designing communicative action in organisations. One foundation of the language/action approach is speech act theory, which investigates how language can be used to perform actions. The main application of the language/action approach has been in the area of business process design and management, where the approach can assist in creating complete and well-functioning processes. A recent trend is to apply the language/action approach for agent-oriented information systems, including applications to e-commerce and e-business.

## II.

### A) Виберіть визначення наданих термінів та запишіть їх:

*OER Pattern; Business Transaction; Speech Act; Deontic Effect; Business Process; Instrumental Act; Information System*

1. This is comprised of business transactions that realize a business objective.
2. This consists of speech acts that result in a deontic effect.
3. This is the establishment of an obligation or the fulfillment of an obligation.
4. This is a system for supporting communication within and between organisations.
5. This is an act performed in order to change the physical world.
6. This is a basic pattern for business interaction based on order-execution-result phases.
7. This is a linguistic act performed with the intention of changing the social relationships between agents, in particular, creating deontic effects.

Отформатировано: английский (США)

Отформатировано: английский (США)

Отформатировано: английский (США)

Отформатировано: английский (США)

Отформатировано: Шрифт: полужирный, английский (США)

Отформатировано: Шрифт: полужирный, английский (США)

**B) Дайте письмову відповідь на запитання:**

Отформатировано: Шрифт: полужирный, английский (США)

1. What is the primary purpose of an information system ?
2. How are the data and communicative views of information systems mirrored ?
3. Is the language/ action approach based on theories from linguistics and the philosophy of language ?
4. Where have the most important applications of the language/ action approach been made ?
5. What does speech act theory investigate ?

**C) Складіть п'ять запитань до тексту.**

**III. Поставте дієслова у дужках у необхідному часі, письмово перекладіть умовні речення та речення з «*I wish*»:**

1. If you (to give) me your e-mail address, I shall write you a letter.
2. If she (not to be) so absent-minded, she would be a much better student.
3. If you were not so careless about your health, you (to consult) the doctor.
4. If I (to translate) the article yesterday, I should have had time to correct the mistakes.
5. If he doesn't come in time, we (to have) to wait for him ?
6. I love sunny weather. I wish it (to be) warm and fine all the year round.
7. If I had joined you in fishing, I (to catch) a lot of fish.
8. I wish I (not to have) to do my homework every day.
9. I wish I (not to drink) so much coffee in the evening : I could not sleep half the night.
10. The view was spectacular ! I wish I (to take) the camera.

**IV. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на різні значення дієслів *should, would*:**

1. He was a little surprised that she should not believe him.
2. At the office he gave instruction that inquiries should be made about a young colleague.
3. She wanted to go and see him off, but he had been very insistent that she shouldn't.

4. I thought I should get over it but I still feel offended.
5. As far as this research is concerned, mention should be made that it is of great significance for our university.
6. After reading a new-technical article you would write an abstract.
7. Many of the modern achievements in various fields of science would be quite impossible without computers.
8. The weather experts said that it would rain tomorrow.
9. You should know how to raise your children not to be losers.
10. You shouldn't give the child everything he wants. You shouldn't satisfy his every craving for food, drink and comfort. Otherwise, he will grow up to believe the world owes him a living.

**V. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Infinitive*:**

1. The Internet system was designed to be decentralized and “open”: it carries all digital traffic, be it song or spam for the same price.
2. Many telecoms companies claim that charging different prices for different uses, such as telephone calls or downloading films, will give them the means and incentive to invest in better-engineered networks.
3. E-commerce companies like to sum up in a single phrase what their business is about, for example: “Making inefficient markets efficient”.
4. “We try to figure out what customers want and then give it to them,” says Amazon’s Jeff Bezos.
5. That summer HP also started to offer its own-brand version of the iPad.

**VI. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Participle*:**

1. The Internet is an amorphous global network of thousands of linked computers that pass information back and forth.
2. Web spider are powerful software programs that crawl around the world wide web, automatically analyzing words, following links and collecting vast amounts of data.
3. According to most analysts, the paid-search business is leading the recovery in advertising expenditure on the internet.
4. According to a published article, the Mafia has kidnapped an IBM executive and cut off his finger because it needed his fingerprint to breach a computer security system.
5. Data sent over communication lines can be protected by encryption, the process of scrambling messages.

**VII. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Gerund*:**

1. The last decade has seen a significant shift in our understanding of digital tools.
2. Sergey Brin and Larry Page started building a search engine that would not only examine the words on web pages, but also look at how and where those words were being used and at the number of other websites linked to that page.
3. Searches are now such an important tool for connecting buyers and sellers that some companies spend most of their marketing budget on getting a high page-ranking in the sponsored lists on various services which can help websites move up the independent listings.
4. The search-engine-optimisation companies sometimes employ tricks such as setting up 'ghost' web pages, which make a site appear more widely used than it really is.
5. Methods in computer-based criminal activity range from switching or altering data as they enter the computer, to pulling self-concealing instruction into the software.

**VIII. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на різні значення виділених слів (див. зразок до вправи VIII):**

1. We generate electrical power for industry **as well as** for everyday-life needs.
2. **Only** this system created the most favourable conditions for scientific research.
3. By means of this instrument you can determine **both** the chemical **and** physical properties of the substance.
4. Builders are interested in plastics **for** they offer a rare combination of properties.
5. This problems were solved **as early as** in the 19<sup>th</sup> century.
6. **Neither** fish **nor** flesh.

## VARIANT II

### I. Перепишіть та письмово перекладіть текст

#### A PRIMER ON E-GOVERNMENT

E-government (electronic government) has become a mainstay in local, state, and federal government. The era of e-commerce and e-business began with the widespread adoption of the Internet in the mid-1990s and today many citizens expect the same responsiveness and access to government services as found in the private sector.

Although there is widespread interest in the topic, e-government lacks a consistent, widely accepted definition. It is often related to revolutionizing the business of government through the use of information technology (IT), particularly Web-based technologies, which improve internal and external processes, efficiencies, and service delivery.

E-government has evolved from the information technology revolution. Information technology enables new methods of production, increases the flow and accuracy of information, and even may replace traditional standard operating procedures. Information technology in government has long been acknowledged as a method for improving efficiency and communication. Now, IT developments such as electronic mail (e-mail) have changed interpersonal communications to eliminate the constraints of geography, space, and time with profound organizational consequences. The ability to buy and sell goods and services via the Internet has led to new private sector industries, constituting a new business model that the public sector now seeks to emulate. In addition, IT has promoted globalization, which also changes the environment within which public agencies function.

The main concerns of e-government focus not only on the electronic dissemination of public information arising from traditional agency functions, but even more on reinventing agency processes to fully exploit the potential of information technology. The reinvention process requires overcoming the rigidities and limits of traditional bureaucratic forms. Specific objectives may include the centralization of public data and the improvement of internal processes and communications.

Although the reinventing government and e-government movements are related, the prospects are that the focus of public administration on e-government will endure for the foreseeable future, outlasting the reinventing government movement.

One of the most significant information technology developments at the federal level occurred after the tragedies of September 11. The attacks against America forced government officials to reexamine their information technology policies, infrastructure, and systems. The newly established Office of Homeland Security and

Отформатировано: Шрифт: полужирный, русский

Отформатировано: русский

Отформатировано: Шрифт: полужирный, русский

Отформатировано: русский

Отформатировано: английский (США)

Отформатировано: английский (США)

Отформатировано: английский (США)



its associated directives comprise the largest centralization and consolidation effort involving governmental databases in the history of the US. The lack of connectivity and interoperability between databases and agency technologies is a crucial challenge that must be overcome, it is argued, in order to create a comprehensive infrastructure to deal with issues of terrorism.

Отформатировано: английский (США)

Although the effects of September 11 have impacted the use of information technology in the public sector in a variety of ways, there is little doubt that citizen demand for electronic information and services is likely to continue the trend of e-government adoption and expansion.

Отформатировано: английский (США)

The role of the Internet continues to increase as more citizens use it to find pertinent information, purchase goods and services, and to participate in virtual communities. By capitalizing on the Internet revolution, governments can create new channels of communication and new methods for participation via e-government. The changing information environment and the movement toward a knowledge economy, juxtaposed against citizen and business demands, mandate that government become involved in e-government initiatives and related uses of information technologies. Furthermore, success of existing e-government efforts provides increased legitimacy for further information technology adoption.

Although e-government has been offered as a panacea to the ills of the public sector, it has not yet achieved the massive reform and reorientation promised by its proponents. In fact, the e-government movement, similar to other management movements such as total quality management (TQM), new public management, and the reinventing government efforts, has not been successful in altering the core structures of government or avoiding its associated failures. Given the documented lag time for technology adoption in the public sector, public sector realization of the power of the Internet and e-government must be seen as still nascent at best. By understanding the theoretical premises that underlie e-government and public information technology, programs and processes can be designed to assist government in reaping the benefits associated with the strategic use of information technology and e-government.

Отформатировано: английский (США)

## II.

Отформатировано: английский (США)

### A) Виберіть визначення наданих термінів та запишіть їх:

*E-Government; E-Services; Citizen-Centric; E-(Electronic) Democracy;  
E-Procurement*

Отформатировано: Шрифт: полужирный, английский (США)

Отформатировано: Шрифт: полужирный, английский (США)

1. A new approach to organization of government information and dissemination of government services that focuses on citizen needs and desires instead of traditional bureaucratic functions. For example, a citizen-centric Web site may combine various services, provided by different departments or agencies, under a common

- heading based on life events.
2. A new method of engaging citizens in political participation, including e-rulemaking, e-voting, and various means of communication with elected and appointed officials.
  3. A strategy for revolutionizing the business of government through the use of information technology (IT), particularly Web-based technologies, which improve internal and external processes, efficiencies, and service delivery.
  4. The online provision of goods and services by government agencies. E-procurement includes services by government agencies. E-procurement includes online requests for proposal (RFPs), online requests for bids (RFB), online bid acceptance, and online monitoring of contracts.
  5. The provision of government services via the Internet, including online information, online forms, online transactions, and online referral processes.

**B) Дайте письмову відповідь на запитання:**

1. Does e-government lack a consistent, widely accepted definition ?
2. When did the era of e-commerce and e-business begin ?
3. Can information technology replace traditional standard operating procedures ?
4. How can governments create new channels of communication ?
5. Does the role of the Internet continue to increase ?

**C) Складіть п'ять запитань до тексту.**

**III. Поставте дієслова у дужках у необхідному часі, письмово перекладіть умовні речення та речення з «I wish»:**

1. You won't understand the rule if you (not to listen) to the teacher.
2. You would not feel so bad if you (not to smoke) too much.
3. If you gave me your dictionary for a couple of days, I (to translate) this text.
4. If you (to go) to the theatre with us last week, you would have enjoyed the evening.
5. If he had warned me, I (to do) the work in time.
6. Will you be angry if we (not to come) ?
7. I wish (to know) English.
8. I like small towns. I wish (not to live) in a big city.
9. I feel sick. I wish (not to eat) so much cake.
10. The weather was cold while we were away. I wish it (to be) warmer.

**IV. Перепишіть та письмово перекладіть на українську мову наведені**

Отформатировано: Шрифт: полужирный, английский (США)

**нижче речення, звертаючи увагу на різні значення дієслів *should, would*:**

1. I think he was determined that nothing should interfere with his independence of spirit.
2. They arranged that the girl should tell her parents that she was engaged to be married.
3. He had never suggested that I should visit them.
4. She insisted that we should put the party off.
5. You should follow all the important scientific researches in your field.
6. Without electric equipment space flights would be impossible.
7. This device is automatic, but a mechanic is always available in case anything would be wrong.
8. Perhaps you would be kind enough to let us know about this.
9. You shouldn't laugh at your child when he picks up bad words. This will make him think he isn't cute. It won't also encourage him to pick up "cuter" phrases.
10. You shouldn't avoid using of the word 'wrong'. This won't condition your child to believe later, when he is arrested for stealing a car, that society is against him.

**V. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Infinitive*:**

1. The way to make money out of search is to sell the words people put in when they look for things on the web.
2. A website operator could, for instance, pay a search-engine-optimisation company to help him design his site to maximize its page ratings.
3. The sites with more up-to-date information are more likely to be relevant to a search, and therefore tend to rise higher.
4. Google and other search companies constantly fiddle with their algorithms to try to prevent their independent search results from being manipulated.
5. Windows runs more than 90% of the world's PCS, so this is bound to raise further antitrust concerns.

**VI. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Participle*:**

1. Google knows plenty of people who have profited from ads placed on their websites.
2. Microsoft is working hard on all manner of B2B applications, including some of that will allow its Office suite of programs to be closely integrated with e-commerce activities.

3. Groups of companies will increasingly use systems that pull together the information held in different parts of their organization.
4. Having lured a customer to their site, the trader will try to switch the buyer to a more expensive item.
5. Criminals also use the web for nasty things. Reliable numbers are hard to come by, not least because people would rather not admit to having been defrauded, nor do websites welcome publicity about crime.

**VII. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Gerund*:**

1. People must be taught that some kind of help, such as assisting unauthorized users with passwords are inappropriate.
2. Advertising helps for the internet's free services, such as search.
3. G-mail offers users more than 100 times the storage space of rival e-mail services, in return for agreeing to sponsored links being placed in their e-mails.
4. And yet the internet still remains capable of producing surprises.
5. New e-services can leave people wondering how they ever managed without them.

**VIII. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на різні значення виділених слів (див. зразок до вправи VIII):**

1. The increase in labour productivity in industry is due to automation of manufacturing processes.
2. The engineers will soon obtain better results, since they use a computer.
3. Because of the danger of computer crimes one must take safety measures.
4. Provided automatic control is used, it will relieve man of monotonous work.
5. As far as our future work is concerned, it'll be very interesting.
6. Neither here nor there.

## VARIANT III

### I. Перепишіть та письмово перекладіть текст

#### E-GOVERNMENT TYPOLOGIES

Although several typologies have been developed to explain the progression of e-government, the definition of the stages of e-government maintains continuity with the working definition set forth at the outset of this essay. It is also important to note that the stages to be discussed do not represent a true linear progression, nor are they specific block steps. Rather, the stages are a continuum in which governments can be within the same stage with very different functionalities and service offerings.

There are five main stages of e-government. Figure 1 offers a side-by-side comparison of the major components of the five stages of e-government. Each of the stages is discussed in further detail below.

The lack of an organizational Web site is not defined by a stage, but may be considered Stage 0. Stage 1 is the emerging Web presence, which involves static information presented as a type of online. The main goal of the emerging Web stage is to provide an online mechanism for communicating key general information about the government to interested citizens and entities. The Web site lacks information about services and is not organized in a citizen-focused manner. Typically, the government has used a “go it alone” approach, which visually represents the stovepipes that exist within agencies—there is little coordination across agencies and levels of government in Stage-1 Web sites.

In Stage 2, enhanced Web presence, the role of the Web site becomes associated with information on services, although it is still organized by departments rather than by user groups. Enhanced-Web-presence sites typically have e-mail as a means of two-way communication. However, rarely are there available forms for download. Stage 2 offers limited communication and greater information about the services of the government, but it does not meet the citizen-centric approach that has been advocated for e-government.

Stage 3, interactive Web presence, begins to move into the citizen-centric realm of e-government. Typically, the information is portrayed by intuitive groupings that cross agency lines. For example, the Web site might use a portal as the single point of entry into various departments and service areas. The portal would offer major groupings like business, new-resident, seniors, children, or other standard groups. Then, the end user would select the grouping that applies and be launched into a new section of the portal where the most common services requested for the group are located. The services would not be listed by departmental areas, but rather by functional areas. Stage-3 sites have downloadable forms with online submissions,

Отформатировано: Шрифт: полужирный, английский (США)

Отформатировано: английский (США)

Отформатировано: Шрифт: полужирный, русский

Отформатировано: Шрифт: полужирный, английский (США)

Отформатировано: английский (США)

Отформатировано: английский (США)

Отформатировано: английский (США)

Отформатировано: английский (США)

e-mail contacts for various governmental employees, and links to other governmental Web sites.

Отформатировано: английский (США)

Stage 4, transactional Web presence, offers the ability to conduct secure online transactions. This stage is also organized by user needs and contains dynamic information. The Web site may offer a variety of transactions, including paying for services, paying bills, and paying taxes. Transactional Web presence includes online submission of forms, many downloads, e-mail contacts, and several links to other government sites. The use of digital signatures also falls under Stage 4.

Отформатировано: английский (США)

The final stage, Stage 5, involves seamless govern—ment. Although this stage represents an ideal, there is no real example of its application. Stage 5 involves a cross- agency, intergovernmental approach that only displays one front, regardless of service area. For example, a seamless Web site would offer local, state, and federal government services via the state portal without the end user recognizing what level of govern—ment provides the service. A Stage-5 site would offer vertical and horizontal integration and would require true organizational transformation with respect to administrative boundaries.

**Figure 1. E-government typology**

Отформатировано: Шрифт: полужирный, английский (США)

Stage	Orientation	Services	Technology	Citizens
Stage 1: Emerging Web	Administrative	Few, if any	Only Web	Going it alone
Stage 2: Enhanced Web	Administrative, Information	Few forms, no transactions	Web, e-mail	Links to local agencies
Stage 3: Interactive	Information, Users,	Number of forms,	Web, e-mail, portal	Some links to state
Stage 4: Transactional Web Presence	Information, Users	Many forms and transactions	Web, e-mail, digital signatures, PKI	Some links to state and federal sites
Stage 5: Seamless Web Presence	Users	Mirror all services provided in person, by mail,	Web, e-mail, PKI, digital signatures, portal, SSL,	Crosses departments and layers of government

Отформатировано: английский (США)

**II.**

Отформатировано: Шрифт: полужирный, английский (США)

**A) Виберіть визначення наданих термінів та запишіть їх:**

Отформатировано: Шрифт: полужирный, английский (США)

“Stovepipe”, E-Government; Portal; E-Services

Отформатировано: Шрифт: полужирный, русский

1. A strategy for revolutionizing the business of government through the use of

information technology (IT), particularly Web-based technologies, which improve internal and external processes, efficiencies, and service delivery.

2. The provision of government services via the Internet, including online information, online forms, online transactions, and online referral processes.
3. A one-stop, cross-department/ business unit and cross-jurisdictional Web site that serves as an aggregation of government services in a given functional area or based on user needs.
4. The traditional orientation of governments or business units, in which each department or business unit acts independently and autonomously. Lack of integration and interoperability and issues of duplication of efforts characterize stovepipe organizations.

**B) Дайте письмову відповідь на запитання:**

1. Have several typologies been developed to explain the progression of e-government ?
2. How many main stages of e-government are there ?
3. Do these stages represent a true linear progression ?
4. What may be considered Stage O ?
5. What is the main goal of the emerging Web stage ?

Отформатировано: Шрифт: полужирный, английский (США)

**C) Складіть п'ять запитань до тексту.**

Отформатировано: Шрифт: полужирный, английский (США)

**III. Поставте дієслова у дужках у необхідному часі, письмово перекладіть умовні речення та речення з «I wish»:**

1. If he (to read) English newspapers every day, his vocabulary will increase greatly.
2. If you had let me know yesterday, I (to bring) you my book.
3. You will never finish your work if you (to waste) your time playing computer games.
4. If I (to have) his telephone number, I should easily settle this matter with him.
5. If they (to know) it before, they would have taken measures.
6. If I were not present at the lesson, I (not to understand) this difficult rule.
7. I wish I (can) give up smoking.
8. I wish I (not have) to work so hard.
9. It was a difficult question. I wish (to know) the answer.
10. I should have listened to you. I wish I (to take) your advice.

**IV. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на різні значення дієслів *should, would*:**

1. It is required that modern computers should meet high standards of quality.
2. I should like to read this book about computers.
3. It was important that no sound should give warning of their approach.
4. It's absolutely essential that you shouldn't breathe a word.
5. It puzzled me that such a young girl should so insistently occupy his thoughts.
6. The engineers would soon obtain better results, since they use a computer.
7. The engineer said that he would check these readings every two hours.
8. Further tests would be made to determine the possibility of using the new method.
9. You shouldn't pick up everything your child leaves lying around-books, shoes and clothing. You shouldn't do everything for him, otherwise, he will be experienced in throwing all responsibility onto others.
10. You shouldn't quarrel frequently in the presence of your child. Otherwise, he will not be too shocked when the home is broken up later.

**V. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Infinitive*:**

1. The internet offers huge scope for both business and leisure, but security urgently needs to be improved
2. There has never been a better time to start a business, especially an e-business.
3. By growing organically, commercial websites tend to develop loyal followers.
4. Many people now organize their online lives around their favorite sites, in much the same way as people used to visit their favourite shops in the high street.
5. The real power of e-commerce is not just the ability to buy things online and have them delivered, but how it can change the way people live and work.

**VI. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Participle*:**

1. Hackers and criminally minded individuals invade systems, causing disruptions, misuse and damage accidents that result in breaking several communications links, affecting entire regions.
2. Information stored in the memory consists of data and method of their processing.
3. Compact discs are usually made of polycarbonate with aluminum alloy spread upon its surface, which is covered with plastic to protect a CD from dust and fingerprints.
4. The process of the information transformation is represented in the following scheme: information numbers binary codes. The same scheme, being read from the right to the left, presents a means of representation of the result of computer's work-output data.



5. Two important features offered by word processors are automatic hyphenation and mail merging.

**VII. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Gerund*:**

1. Multimedia, the electronic publishing revolution is entering every area of our lives-college, work and home.
2. Conducting business online will continue to get easier.
3. In the near future, an online shopping service could make recommendations on the basis of personal information, such as checking the diaries people keep on their computers (provided they have given their permission).
4. Professionals are responsible for designing and developing products which avoid failures that might lead to losses, cause physical harm, or compromise national or company security.
5. With so much info flowing across the Internet and because of the rising popularity of applets and similar modular applications, it is vital for the professionals to take responsibility in maintaining high standards for products they develop.

**VIII. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на різні значення виділених слів (див. зразок до вправи VIII):**

1. The strength of the light metals is less than that of the heavy metals.
2. It is the only metal which can be used in this design.
3. Either copper or aluminium is used for cables.
4. The appearance of new materials is due to the achievements of chemistry.
5. As far back as in ancient times philosophers focused their attention on this problem.
6. Neither rhyme nor reason.

## VARIANT IV

Отформатировано: Шрифт: полужирный, английский (США)

### I. Перепишіть та письмово перекладіть текст

Отформатировано: Шрифт: полужирный, русский

Отформатировано: русский

#### A WEB-GEOGRAPHICAL INFORMATION SYSTEM TO SUPPORT TERRITORIAL DATA INTEGRATION

Отформатировано: Шрифт: Times New Roman, полужирный, английский (США)

Отформатировано: английский (США)

The design of a Web-geographical information system, Web-GIS, strongly requires methodological and operational tools for dealing with information distributed in multiple, autonomous and heterogeneous data sources, and a uniform data publishing methodology and policy over Internet Web sites.

The DEAFIN (development agencies and their impact on foreign direct investments) project has been launched with the purpose of allowing companies and investors to get a comprehensive information framework about areas located in European regions suited for potential investments. The DEAFIN Web-GIS, whose objective is to provide a common environment for comparison of information about available vacant industrial sites coming from different regional data sources. The aim is to make the regional data about possible investment areas homogenous and comparable, and internationally accessible. Potential investors need both a survey and a detailed view of vacant sites in different locations in order to compare different opportunities and decide their convenience. Quite naturally, such requirements call for a federated information system (FIS), which grants local sites a great deal of autonomy while enabling interoperation by means of a global integrated conceptual schema, that is, the federated data schema.

Отформатировано: английский (США)

In general, the data collected at the sites show uniformity with respect to the attention paid to cartographic availability, regulations and laws about reuse of vacant areas, and centralization of resources. In particular, the need exists at each regional site to introduce tools able to treat heterogeneous data, since these data more and more intensively are to come from various data sources, to be mapped into the federated schema. Also, the degree of automation is similar, since cartographic systems and basic data management tools are available at the three partners' sites.

Отформатировано: английский (США)

#### The Web-Gis

The interface of the central Web site allows the users to access data in two search modes: direct search, which leads directly to the vacant area of interest, including also information about the surroundings; and navigation, which presents a list of vacant sites to be filtered progressively, according to various criteria. Indeed, a static benchmarking table presents a list of site features, along with the corresponding values for each partner: from this table the user can choose a partner and obtain pages that describe the partner's area, highlighting its most attractive features.

Отформатировано: Шрифт: полужирный, курсив, подчеркивание, английский (США)

Отформатировано: английский (США)

Отформатировано: английский (США)

Some aggregate data about the vacant sites of each region are also displayed for subsequent browsing operations, where the user can execute queries in order to filter the vacant sites on the basis of preferences or specific criteria, such as: the type of usage, area size, costs, surrounding services, and accessibility. Finally, links to the regional Web sites are provided.

The Web interfaces of regional sites support more specific functions: the exploration of the partner area by choosing a specific theme such as land planning, business and market activities, mobility system, services, demographic and macroeconomic data and development strategies; the access to business information such as contact offices and particular business opportunities that are currently available for some vacant sites of the area; the access to aggregated data about vacant sites of the area and to a benchmarking table where the user can apply some selection conditions based on the available comparison parameters; the search of vacant sites based on forms that guide the user in the specification of the query, including geography related conditions (SQL with geographic extensions) like “search the vacant sites with a railway station within a radius of <parameter value> km”; the selection of specific features of the chosen vacant site, for example, buildings, eco quality, themes presenting the characteristics technological networks, land planning, mobility system, territorial services, procedures and tasks and documents.

### Future Trends

Web-GIS applications are becoming more and more important to a growing number of activities. Geography, geology, environmental studies, business marketing, and other disciplines have gained benefits from GIS tools and methods. Continual improvements in GIS hardware and software will lead to a much wider application of this technology throughout government, business, and industry. In particular, integrated geodata services based on data format standardization will increasingly facilitate the exchange of information among users of different systems by allowing data sharing and improving cooperation and communication among the organizations involved in environmental protection, planning, and resource management.

Отформатировано: Шрифт: полужирный, курсив, подчеркивание, английский (США)  
Отформатировано: английский (США)

## II.

### A) Виберіть визначення наданих термінів та запишіть їх:

*Wrapper; Geographical Information System (GIS); Web-GIS; Mediator;  
Conceptual Schema of a Database*

1. Information system storing geographical data along with alphanumeric and spatial components. GIS systems also provide the data structures and algorithms to represent and efficiently query a collection of geographical data.
2. A software component providing a uniform integrated interface to process and

Отформатировано: Шрифт: полужирный, английский (США)  
Отформатировано: Шрифт: полужирный, английский (США)

execute queries over data stored in multiple, heterogeneous data sources.

3. A software tool to extract content from data sources and perform data format translation.
4. S GIS system empowered with a Webbased interface.
5. A semi-formal high-level description of the database, independent of its implementation.

**В) Дайте письмову відповідь на запитання:**

Отформатировано: Шрифт: полужирный, английский (США)

1. What does the design of a Web-geographical information system require ?
2. Is it necessary to make the regional data about possible investment areas homogenous and comparable, and internationally accessible ?
3. How can the user choose a partner and obtain pages that describe the partner's area?
4. What are two search modes to access data ?
5. Can you name disciplines that have gained benefits from GIS tools and methods ?

**С) Складіть п'ять запитань до тексту.**

Отформатировано: Шрифт: полужирный, английский (США)

**III. Поставте дієслова у дужках у необхідному часі, письмово перекладіть умовні речення та речення з «*I wish*»:**

- 1 If you (to have) more practice in English, you (to be able) to communicate with foreigners.
- 2 If you (to understand) the rule, you would have written the paper successfully.
- 3 If you (to do) your morning exercises every day, your health would be much better.
4. If I had lived two hundred years ago, I (can not use) a computer.
5. If you (not to smoke), you would feel more energetic.
6. If you don't understand the word (to use) a dictionary.
7. I wish I (to know) a lot of foreign languages.
8. My brother plays computer games all the night. I wish he (not to waste) so much time.
9. What I said was stupid. I wish I (not to say) anything.
10. We didn't have time to see all around in London last year. I wish we (to have) more time.

**IV. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на різні значення дієслів *should, would*:**

1. It seemed necessary that his friends should be kept away from interfering with his

work.

2. After lunch it was proposed that they should all go to the lake.
3. It's not likely that they should exchange addresses.
4. It was agreed that he should be first to speak.
5. It's only natural that a mother shouldn't wish to be parted from her children.
6. It was very odd that we should have met in my aunt's house.
7. The work of banks depends upon computer terminals for millions of daily operations. Without these terminals, records of deposits and withdrawals would be difficult to maintain and would be impossible to make inquiries about the current status of customer accounts.
8. It would have been impossible to make such calculations without computers.
9. Would you be so kind to bring me a cup of coffee ?
10. You shouldn't take part of your child against neighbours, teachers and policemen. They aren't all prejudiced against him.
11. When he gets into trouble, you shouldn't apologize for yourself by saying, "I never could do anything with him".

**V. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Infinitive*:**

1. eBay employs some 800 people around the world to police its auctions.
2. The criminal activity has to be brought under control, or else consumers will retreat.
3. For most people, most of the time, the internet is a great place in which to go exploring, to buy, to sell and make a living.
4. As the computing sciences move rapidly toward "professionalization" the new topic must be incorporated into the curriculum-ethics, i.e. professional ethical behavior.
5. Fault tolerance is our best guarantee that high confidence systems will not betray the intentions of their builders and the trust of their users by succumbing to physical, design or human-machine interaction faults, or by allowing viruses and malicious acts to disrupt essential services.

**VI. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Participle*:**

1. The typical microcomputers sold today can work with more than 200 times as fast.
2. In 1944 in the United States, International Business Machines (IBM) built a machine in cooperation with scientist working at Harvard University under the direction of Prof. Aiken.

3. The machine, called Mark I Automatic Sequence-Controlled Calculator, was the largest electromechanical calculator ever built.
4. The computer, capable to perform thousands of related computations, was called ABC, the Atanasoff-Berry Computer, after Dr. John Atanasoff, a professor of physics and his assistant Clifford Berry.
5. The integrated circuit constituted another major step in the development of computer technology.

**VII. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Gerund*:**

1. People manipulate words and text on a screen-primarily to print at some later time and store for safe keeping.
2. Computers alleviate much of the tedium associated with typing, proofing and manipulating words.
3. The real strength of word processing lies in this ability to store, retrieve and change information.
4. Typing is still necessary (at least, for now) to put the information into the computer initially, but once in, the need to retype only applies to new information.
5. Many word processors now have so many features that they approach the capabilities of layout applications for desktop publishing.

**VIII. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на різні значення виділених слів (див. зразок до вправи VIII):**

1. He had to work hard for not to fail in his exam.
2. The plant died as a result of my son overwatering it.
3. The research is not considered to be accurate because it has been done with no respect to errors.
4. No matter what improvements are made, it will not be possible to finish our experiment in time.
5. Weather patterns have been changing recently due to the global warming up.
6. If you run after two hares, you will catch neither.

## VARIANT V

Отформатировано: Шрифт: полужирный

### I. Перепишіть та письмово перекладіть текст

Отформатировано: Шрифт: полужирный, русский

Отформатировано: русский

#### ACTOR-NETWORK THEORY AND ADOPTION OF E-COMMERCE IN SMEs

##### Introduction

Just because e-commerce technologies seems like useful tools that may assist a small to medium enterprise (SME) in doing its business better, it does not necessarily follow that these technologies will be *adopted* by this business. The implementation of an e-commerce system in an SME necessitates change in the way the business operates, and so should be considered as an innovation and studied using innovation theory.

Electronic commerce (e-commerce) is concerned with how computers, information systems and communications technologies can be used by people to improve the ways in which they do business. As e-commerce necessarily involves interactions of people and technology, any study of how it is used by a small business must be considered in a socio-technical context. Although there is no universal consensus on what constitutes e-commerce, we believe that it contains elements of information systems, business processes and communications technologies. The complexity of studies in e-commerce is due, to a considerable degree, to the interconnected parts played by human actors and by the multitude of non-human entities involved. Small business managers, sales people, staff involved in procurement and warehouse operations, computers, software, Web browsers, Internet service providers (ISP), modems and Web portals are only some of the many heterogeneous components of an e-commerce system.

##### Adoption of E-Commerce by SMEs

We will argue that the decision to adopt, or not to adopt a new technology, has more to do with the interactions and associations of both human and non-human actors involved in the project than with the characteristics of the technology. Information systems are complex socio-technical entities and research into their implementation needs to take account of this complexity, which will only be seen if it is reported in all its “messy reality”. Research into the implementation and operation of these systems needs to take this heterogeneity into account and to find a way to give due regard to both their human and non-human aspects.

One view of the adoption of an electronic commerce innovation by a small business suggests that decisions are made primarily based on their perceptions of the characteristics of the technology concerned. Innovation diffusion uses this approach, and is based on the following elements: characteristics of the innovation

itself, the nature of the communications channels, the passage of time, and the social system. Using this sort of approach, the researcher would probably begin by looking for characteristics of the specific e-commerce technology to be adopted, and the advantages and problems associated with its use. The next step would be to suggest that the adoption, or rejection, of this technology by the small business was due largely to these characteristics. There may be some validity in such an approach, it is unlikely to provide the complete explanation, as it would miss other influences due to inter-personal and inter-business interactions, and to the backgrounds of the people involved.

### **Innovation Translation and Diffusion**

A researcher using an actor-network approach to study innovation would concentrate on issues of network formation, investigating the human and non-human actors and the alliances and networks they build up. While some research approaches to technological innovation treat the social and the technical in entirely different ways, actor-network theory proposes instead a socio-technical account in which neither social nor technical positions are privileged.

It is often the case that when a small business is considering a technological innovation it is interested in *only some aspects* of this innovation and not others. In actor-network terms it needs to *translate* this piece of technology into a form where it can be adopted, which may mean choosing some elements of the technology and leaving out others. What results is that the innovation finally adopted is not the innovation in its original form, but a translation of it into a form that is suitable for use by the recipient small business.

The theory of innovation diffusion is well established and has been used as the framework of many studies. In most cases, however, the success of the diffusion model has been in explanation of innovation “in the large,” when the statistical effects of big numbers of organisations and individuals involved come into play. It has, typically, been less successful in explaining how particular individuals or specific organisations make their adoption decisions, and it is in situations like this that an innovation translation approach, using actor-network theory, is especially useful.

In offering a socio-technical approach to theorising innovation, ANT provides a particularly useful tool to the study of innovations in which people and machines are intimately involved with each other. The adoption of e-commerce technologies certainly involves a consideration of the technologies themselves, but also of business organizations, business processes, and the needs and likes of individual humans.



## II.

### A) Виберіть визначення наданих термінів та запишіть їх:

*Actor-Network Theory (ANT); E-Commerce Studies; Innovation Diffusion; Innovation Translation; Small to Medium Enterprise (SME); Technological Innovation; Technology Adoption*

1. A theory of innovation in which the main elements are: characteristics of the innovation itself, the nature of the communication channels, the passage of time, and the social system through which the innovation diffuses.
2. The decision, by an organization or individual, to utilize and implement a technology.
3. An approach to research in which networks associations and interactions between actors (both human and non-human) are the basis for investigation.
4. The introduction or alteration of some form of technology (often information technology) into an organization.
5. Contain elements of information systems, business processes and communications technologies.
6. ...are considered to those businesses that have from 1-20 employees – small, and 21-50 employees – medium.
7. A theory of innovation in which, instead of using an innovation in the form it is proposed, potential adopters translate into a form that suits their needs.

### B) Дайте письмову відповідь на запитання:

1. What is the complexity of studies in e-commerce due to ?
2. What does e-commerce necessarily involve ?
3. How can computers, information systems and communications technologies be used by people to improve the ways in which they do business ?
4. What does actor-network theory propose ?
5. Has the theory of innovation diffusion been used as the framework of many studies ?

### C) Складіть п'ять запитань до тексту.

## III. Поставте дієслова у дужках у необхідному часі, письмово перекладіть умовні речення та речення з «I wish»:

1. If you (to give) me your e-mail address, I shall write you a letter.
2. If she (not to be) so absent-minded, she would be a much better student.

Отформатировано: Шрифт: полужирный, английский (США)

Отформатировано: Шрифт: полужирный, английский (США)

Отформатировано: Шрифт: полужирный, английский (США)

Отформатировано: Шрифт: полужирный, английский (США)

3. If you were not so careless about your health, you (to consult) the doctor.
4. If I (to translate) the article yesterday, I should have had time to correct the mistakes.
5. If he doesn't come in time, we (to have) to wait for him ?
6. I love sunny weather. I wish it (to be) warm and fine all the year round.
7. If I had joined you in fishing, I (to catch) a lot of fish.
8. I wish I (not to have) to do my homework every day.
9. I wish I (not to drink) so much coffee in the evening : I could not sleep half the night.
10. The view was spectacular ! I wish I (to take) the camera.

**IV. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на різні значення дієслів *should, would*:**

1. He was a little surprised that she should not believe him.
2. At the office he gave instruction that inquiries should be made about a young colleague.
3. She wanted to go and see him off, but he had been very insistent that she shouldn't.
4. I thought I should get over it but I still feel offended.
5. As far as this research is concerned, mention should be made that it is of great significance for our university.
6. After reading a new-technical article you would write an abstract.
7. Many of the modern achievements in various fields of science would be quite impossible without computers.
8. The weather experts said that it would rain tomorrow.
9. You should know how to raise your children not to be losers.
10. You shouldn't give the child everything he wants. You shouldn't satisfy his every craving for food, drink and comfort. Otherwise, he will grow up to believe the world owes him a living.

**V. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Infinitive*:**

1. Online music is potentially big business, but people have to be persuade to pay for it.
2. The catalogues which web spiders assemble are by search engines to display an index of web pages in response to key words entered by a user.

3. Even the world's biggest software company cannot afford to ignore the power of search.
4. Only a few years ago, search did not seem to matter very much.
5. The idea was to keep users cosseted within the portals, where they could be sold things, presented with ads and encouraged to sign up for additional services.

**VI. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Participle*:**

1. As more computers become permanently plugged into high-speed internet connections, many more people will search directly without opening a web browser while working on a report on presentation.
2. More specialized searches, such as those concentrating on web pages that match users' interests, will be a big area of development.
3. WebFountain has been developed by IBM's research centre at Almaden, California, to use text analysis as a way of identifying trends, patterns and relationships from massive amounts of both unstructured and semi-structured text, ranging from bulletin boards, chat rooms, web logs, newspapers and trade journals.
4. Ergonomics is the study of human factors related to computers.
5. A properly designed workstation takes a variety of factors into account, such as the distance from eyes to the screen and the angle of the arms and wrists.

**VII. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Gerund*:**

1. Yahoo!, which was founded by two Stanford students, David Filo and Jerry Yang, has been growing strongly with the help of paid-search advertising.
2. Finding local information is becoming an area of hot competition.
3. At present, search marketing is considered a relatively cheap and cost-effective method of finding customers.
4. Websites will also try to keep their exit barriers to users high, not least by making it move convenient to stay with them than to start again somewhere else, with all the hassle of filling in personal details and credit-card information.
5. Virus is the name generally given to software that causes altering of computer files.

**VIII. Перепишіть та письмово перекладіть на українську мову наведені**

**нижче речення, звертаючи увагу на різні значення виділених слів (див. зразок до вправи VIII):**

1. We generate electrical power for industry as well as for everyday-life needs.
2. Only this system created the most favourable conditions for scientific research.
3. By means of this instrument you can determine both the chemical and physical properties of the substance.
4. Builders are interested in plastics for they offer a rare combination of properties.
5. This problems were solved as early as in the 19th century.
6. Neither fish nor flesh.

## VARIANT VI

Отформатировано: Шрифт: полужирный, английский (США)

### I. Перепишіть та письмово перекладіть текст

Отформатировано: Шрифт: полужирный, русский

Отформатировано: русский

Отформатировано: русский

#### ANALYZING THE QUALITY OF VIRTUAL TEAMS

Global market developments and the large-scale use of diverse applications in the area of information and communication technology (ICT) have been key factors in the emergence of distributed teams. Such teams are often referred to as virtual teams. Virtual teams enable collaboration between people across traditional boundaries and offer tremendous opportunities for various achievements. Businesses are no longer tied to a single time zone and are, for example, able to develop software around the 24-hour clock. The Internet—as the almost universal medium for interaction across boundaries—has created an infrastructure that enables many organizations to launch virtual teams. Hardly any technical obstacle for communication and collaboration across geographic boundaries remains, as these processes are supported by high-tech collaboration solutions such as groupware and other collaborative applications (e.g., videoconferencing, electronic blackboards). Virtual teams have a number of opportunities that are not found with co-located teams, such as involving rare expertise.

For example, a group of eight scientists from different organizations rapidly developed a revolutionary rocket engine design by working under geographically dispersed conditions and without prior work relationships. The complex and innovative design could not have been developed without the expertise of the eight highly specialized scientists. However, the design was not only a result of a careful combination of expertise, but required a number of interdependent iterative ‘virtual’ brainstorming sessions among the team of rocket scientists. All these activities were performed through a collaboration tool called “the Internet notebook,” whereby the specialists spend no more than 15% of their time on the project.

As the above example illustrates, virtual teams have the advantage of bringing people together without the obvious constraints with regard to travel time, work-space, and socialization. Virtual teams perform a variety of tasks and are also defined in various ways. The term generally implies groups of geographically and culturally dispersed co-workers using a combination of communication and information technologies to accomplish an organizational task. We distinguish three types of virtual teams: intra-organizational teams, inter-organizational teams, and inter-organizational distributed teams.

Being ‘virtual’ is a matter of degree and refers, according to various authors,

to dimensions such as spatial distance, time, cultural diversity, temporality, organizational contract, and mode of interaction. Mode of interaction is an important dimension. Some teams meet regularly face to face, but may also have some e-mail-based interaction, while other teams interact intensively and almost exclusively via various media and sophisticated groupware tools. Geographical distance and different timeframes may obviously be important reasons for groups to communicate electronically.

‘Vitality’ refers to the extent to which a group is geographically distributed, is organizationally and culturally diverse, has different timeframes for work, communicates electronically (‘mode of interaction’), and whose members are freelance or have fixed contracts with an organization. The degree of reliance on ICT, its availability, and the proficiency of the users are very important for virtual teams. The more of the above, the more a team is considered to be a virtual group. ‘Virtuality’ is the highest in globally dispersed teams of culturally diverse members of different organizations (or freelancers) that interact temporarily and communicate exclusively via electronic means.

A useful definition of a team (or work group) is a collection of individuals who see themselves and who are seen by others as a social entity, who are interdependent because of the tasks they perform as members of a group, who are embedded in one or more larger social systems (e.g., community, organization), and who perform tasks that affect others. Although often not defined, a number of implicit characteristics of conventional teams seems to include that members are often permanent employees of one organization, are often co-located, and the main form of interaction consists of face-to-face contact.

A crucial difference between co-located and virtual teams is the fact that virtual teams have the opportunity to combine and integrate both co-located and distributed interaction. Virtual teams may combine the better of two worlds and may therefore have an advantage over conventional teams. Virtual teams require certain tools in the area of information and communication technology to support interaction. Some modern tools have sophisticated functionalities that provide such teams with opportunities that conventional teams do not have. One of the major effects of the introduction of collaboration technology has been that certain types of meetings can now be held with a large number of participants. Moreover, some tools allow for easy storage and retrieval of information and for collaborative editing of documents.

## II.

### A) Виберіть визначення наданих термінів та запишіть їх:

*'Virtuality'; Group Dynamics; Team; Groupware*

1. ICT applications that support communication, coordination, cooperation, learning, and/ or social encounters through facilities such as information exchange, shared repositories, discussion forums, and messaging.
2. A collection of individuals who see themselves and who are seen by others as a social entity, who are interdependent because of the tasks they perform as members of a group, who are embedded in one or more larger social systems (e.g., community, organization), and who perform tasks that affect others.
3. The extent to which a group is geographically distributed, is organizationally and culturally diverse, has different timeframes for work, communicates electronically, and whose members are freelance or have fixed contracts with an organization.
4. Field of inquiry dedicated to advancing knowledge about the nature of groups.

Отформатировано: Шрифт: полужирный, английский (США)

Отформатировано: Шрифт: полужирный, английский (США)

### B) Дайте письмову відповідь на запитання:

1. What does the abbreviation "ICT" signify ?
2. Can you name any key factors in the emergence of distributed teams ?
3. How many types of virtual teams do we distinguish ?
4. What is a useful definition of a team (or work group) ?
5. Is there a crucial difference between co-located and virtual teams ?

Отформатировано: Шрифт: полужирный, английский (США)

### C) Складіть п'ять запитань до тексту.

Отформатировано: Шрифт: полужирный, английский (США)

Отформатировано: русский

## III. Поставте дієслова у дужках у необхідному часі, письмово перекладіть умовні речення та речення з «I wish»:

1. You won't understand the rule if you (not to listen) to the teacher.
2. You would not feel so bad if you (not to smoke) too much.
3. If you gave me your dictionary for a couple of days, I (to translate) this text.
4. If you (to go) to the theatre with us last week, you would have enjoyed the evening.
5. If he had warned me, I (to do) the work in time.
6. Will you be angry if we (not to come) ?
7. I wish (to know) English.
8. I like small towns. I wish (not to live) in a big city.
9. I feel sick. I wish (not to eat) so much cake.
10. The weather was cold while we were away. I wish it (to be) warmer.

**IV. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на різні значення дієслів *should, would*:**

1. I think he was determined that nothing should interfere with his independence of spirit.
2. They arranged that the girl should tell her parents that she was engaged to be married.
3. He had never suggested that I should visit them.
4. She insisted that we should put the party off.
5. You should follow all the important scientific researches in your field.
6. Without electric equipment space flights would be impossible.
7. This device is automatic, but a mechanic is always available in case anything would be wrong.
8. Perhaps you would be kind enough to let us know about this.
9. You shouldn't laugh at your child when he picks up bad words. This will make him think he isn't cute. It won't also encourage him to pick up "cuter" phrases.
10. You shouldn't avoid using of the word 'wrong'. This won't condition your child to believe later, when he is arrested for stealing a car, that society is against him.

**V. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Infinitive*:**

1. To continue to get the internet's free services, users may have to be prepared to accept ads.
2. Google and Yahoo! now operate news services that not only report the latest events but also allow users to search through thousands of publications to retrieve past articles.
3. Factiva has licensed the technology to provide a new reputation-management service.
4. Companies could also use reputation-management service to find out what their rivals are up to.
5. Unions and legislators in many communities continue to push for laws limiting exposure to video screens.

**VI. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Participle*:**



1. It is the internet's very openness that makes contact between buyers and sellers so easy and potentially so rewarding.
2. And just as it would not have made sense to shut up the high street because it harboured some thieves and rogues, it would make no sense to combat cybercrime by stopping all internet commerce-even assuming it could be done.
3. Consider air, rail and automobile traffic control, emergency response systems, and most of all, our rapidly growing dependence on health care delivery via high performance computing and communications.
4. Leftover design faults (bugs and glitches) cause system crashes during peak demands, resulting in service disruptions and financial losses.
5. Computer systems suffer stability problems due to unforeseen interactions of overlapping fault events and mismatched defense mechanisms.

**VII. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Gerund*:**

1. Even though so much information is available free, it can be worth paying to use a specialist search service.
2. The internet has dramatically reduced the cost of setting up, and especially of reaching customers.
3. Google's AdSense service uses the search engine's technology automatically to match the content of a website with appropriate text-based ads.
4. eBay found some 430.000 people in America alone now make a full-time living or earn a substantial secondary income from trading on its site.
5. On the internet, it is easy for suppliers to start selling directly because they do need a store to operate from.

**VIII. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на різні значення виділених слів (див. зразок до вправи VIII):**

1. The increase in labour productivity in industry is due to automation of manufacturing processes.
2. The engineers will soon obtain better results, since they use a computer.
3. Because of the danger of computer crimes one must take safety measures.
4. Provided automatic control is used, it will relieve man of monotonous work.
5. As far as our future work is concerned, it'll be very interesting.
6. Neither here nor there.

## VARIANT VII

Отформатировано: Шрифт: полужирный, английский (США)

Отформатировано: английский (США)

### I. Перепишіть та письмово перекладіть текст

Отформатировано: Шрифт: полужирный, русский

#### ARCHIVAL ISSUES RELATED TO DIGITAL CREATIONS

We can define “intellectual creations” as human expressions embodied in text, music, or other forms of art. Increasingly, we encode these creations in digital formats that have extremely short life cycles. After very little time, a digital encoding format becomes obsolete, and intellectual works encoded in the format may become irretrievable. In contrast, the cultural worth of an intellectual creation may not be realized for generations. Additionally, future generations must access artifacts, including intellectual creations, to understand a culture in historical context. We contend that technology – intensive storage and manipulation of data may result in an inability to gain this access. Technology creators have some responsibility to facilitate future retrieval through careful documentation, and by selective maintenance of hardware that may be required to access archival media.

In engineering, Shannon (1948) described elements of a communications system: An information source generate data. A transmitter encodes information to travel over a channel through distance and time. At the other end, a receiver decodes the signal for the destination, which is the person or thing for which the message is intended. Since we are worried about humans, we consider them to be the source and destination. While parts of the transmission system have changed greatly over time, one could certainly argue that technology has caused the other portions of the system to change more rapidly than the human elements. Linguists, beginning with Ferdinand de Saussure, established semiotics as a science of signs, which likewise focuses on the sender and the receiver of a message. Semiotics also posited the arbitrary nature of the sign and looked at the ways human languages encode and transmit messages.

As languages evolved and became standardized, it became possible to encode events in written form. Because writing has traditionally been the province of the learned few, written documents were recorded on long-lived media, and special care was accorded to their storage. Fortunately, many ancient documents have survived, albeit, with significant degradation.

The invention of the printing press made wide distribution of printed information possible, and wood pulpbased paper made it affordable for the general public.

#### Text

Text was the first means of expression to be converted into electrical form. In

fact, text went “direct to digital.” Morse code is a duration-encoded digital signal, unrecognizable to anyone who does not understand it. Initially, storage was primitive, used mainly to “buffer” the information until a human could reconvert it to text. Thus, long-term storage and archiving of Morse code traffic was not an issue.

The first modern bit encoding of text occurred in 1874. Emile Baudot, a French telegraph engineer, devised a 5-bit code for each letter of the alphabet. Unlike Morse code, each symbol had a fixed length representation, dependent only on the presence or absence of electrical current. The Baudot code was durable, used by news service teletype-writers throughout the 1970s.

### **Audio and Visual Technology**

Storage of audio and visual data began in the 19<sup>th</sup> century and progressed in sophistication throughout most of the 20<sup>th</sup> century. While not strictly correct in each instance, the general paths of progress could be viewed as follows:

- Visual Still and Audio-Only, to Visual Motion, to Visual Motion with Audio
- Mechanical or Chemical-Based Recording, and Storage to Electronic Recording and Storage
- Mechanical Reproduction to Electronic Reproduction
- Analog Encoding to Digital Encoding.

The most significant impediments to easy retrieval of an intellectual creation involve electronic encoding and storage, and digital conversion.

Electronic encoding of visual information marks the historical point where the original signal cannot be recovered merely by converting stored data directly into light or motion. The visual image is stored as a series of lines, and voltage references signal new lines or new collections of lines (*frames*). Thus, one must be able to properly decode the various electronic levels and pulses unique to the method, and understand how the lines are ordered and encoded in order to correctly reconstruct the scanned image.

Digital data types in streams of 1s and 0s are indistinguishable without the reverse algorithm to retrieve the original information. The significance is that in addition to the physical details of how the data was encoded, we also need mathematical processing information on how the data was changed after its conversion. Data protection techniques, including public and private key cryptography, hashing algorithms, and other methods, added on top of the conversion technique, have deliberate obscuration of data as their intent.

### **Loss Encoding**

An additional dilemma is that digital conversions result in massive amounts

of data. Compact disc audio, for instance, necessitates a bit rate of 4.32 million bits per second. Efficient storage and transmission virtually require data reduction. We must actually throw away some of the original information (hence the term *lossy*) to make any real progress in storage efficiency. We discard information based on redundancies in the retained data, or upon deeming it insignificant through models of human perceptual limitations.

#### **Impact on long-term data availability**

If intellectual creations are stored in formats that require an exact knowledge of the encoding transforms, the issue for society is whether any of these techniques will be available, or even remembered, in the distant future.

#### **Creators of Technology versus creators of ideas**

Technology creators derive value from innovation. With intellectual creations, there is also a progress-oriented motivation. However, since these creations embody a combination of knowledge, ideas, and interpretation, their value is not necessarily superseded by later works. The finest intellectual works must prove their value repeatedly through decades and centuries of cultural change.

The issue is that these works are increasingly created through a technological process that need only prove itself until the next “better” innovation comes along.

## **II.**

### **A) Виберіть визначення наданих термінів та запишіть їх:**

*Intellectual Creation; Analog; Lossy Encoding; Baudot; Semiotics*

1. Encoding a physical phenomenon by a direct, perceptually continuous variation of a physical property such as electromagnetic intensity (recording tape), mechanical displacement (Vinyl disk), or opaqueness (photographic film).
2. Removal of data that represents redundant information, or difference presumed imperceptible to humans, in order to reduce stored or transmitted quantities of digital data.
3. Any work of creation, such as authorship, visual arts, performing arts, or music.
4. A theory of signs and the use of signs in languages. Semiotics posits the arbitrary nature of the sign and looks at how human languages encode and transmit messages.
5. A 5-bit standard encoding method for uppercase letters, Invented by Emile Baudot in 1874.

### **B) Дайте письмову відповідь на запитання:**

1. How were elements of a communications system described in engineering ?
2. Can you define the term 'semiotics' ?
3. What do technology creators have some responsibility to ?
4. Where did the first modern bit encoding of text occur ? Was the Baudot code durable ?
5. What are 'intellectual creations' ?

**C) Складіть п'ять спеціальних запитань до тексту.**

**III. Поставте дієслова у дужках у необхідному часі, письмово перекладіть умовні речення та речення з «*I wish*»:**

1. If he (to read) English newspapers every day, his vocabulary will increase greatly.
2. If you had let me know yesterday, I (to bring) you my book.
3. You will never finish your work if you (to waste) your time playing computer games.
4. If I (to have) his telephone number, I should easily settle this matter with him.
5. If they (to know) it before, they would have taken measures.
6. If I were not present at the lesson, I (not to understand) this difficult rule.
7. I wish I (can) give up smoking.
8. I wish I (not have) to work so hard.
9. It was a difficult question. I wish (to know) the answer.
10. I should have listened to you. I wish I (to take) your advice.

**IV. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на різні значення дієслів *should, would*:**

1. It is required that modern computers should meet high standards of quality.
2. I should like to read this book about computers.
3. It was important that no sound should give warning of their approach.
4. It's absolutely essential that you shouldn't breathe a word.
5. It puzzled me that such a young girl should so insistently occupy his thoughts.
6. The engineers would soon obtain better results, since they use a computer.
7. The engineer said that he would check these readings every two hours.
8. Further tests would be made to determine the possibility of using the new method.
9. You shouldn't pick up everything your child leaves lying around-books, shoes and clothing. You shouldn't do everything for him, otherwise, he will be experienced in throwing all responsibility onto others.
10. You shouldn't quarrel frequently in the presence of your child. Otherwise, he will not be too shocked when the home is broken up later.

**V. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Infinitive*:**

1. Even walmart.com does not seem to be considered particularly threatening by most other e-businesses, perhaps because creating a virtual superstore is not in itself enough to make much of difference.
2. Consumers should expect something similar to happen.
3. A strong economic incentive may well persuade some people to part with more information about themselves, but any abuse would cause a huge backlash.
4. Companies have to work hard to stay ahead of criminals.
5. On the internet, it is easy for suppliers to start selling directly because they do need a store to operate from.

**VI. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Participle*:**

1. Many word processors can generate tables of numbers or figures, sophisticated indexes and comprehensive tables of contents.
2. There is a system, controlled by computer, of giving books a code number, reducing them in size by putting them on microfiche, and then storing 3,000 or more in a container no bigger than a washing machine.
3. Computers form a part of many military systems including communication and fire control.
4. Air traffic control is impossible without computer application. It fully depends upon computer-generated information.
5. It should be noticed that learning on a computer can be spend more time with computer-aided instruction performing the assigned task, as compared with conventional classroom.

**VII. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Gerund*:**

1.
  1. Common means of protecting data are securing waste, separating employee functions and implementing passwords, internal controls, audit checks.
  2. Computer is a machine used for fulfilling a specified strictly, defined sequence

of actions dealing with information processing.

3. In the end of 1930s – at the beginning of 1940s in Germany several counting machines for fulfilling complicated engineer calculations were built up.

4. Central Processing Unit is the main working element of a computer used for processing information.

5. Writing letters, memos or reports are the ways most people use computers.

**VIII. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на різні значення виділених слів (див. зразок до вправи VIII):**

1. The strength of the light metals is less than that of the heavy metals.

2. It is the only metal which can be used in this design.

3. Either copper or aluminium is used for cables.

4. The appearance of new materials is due to the achievements of chemistry

5. As far back as in ancient times philosophers focused their attention on this problem.

6. Neither rhyme nor reason.

## VARIANT VIII

### I. Перепишіть та письмово перекладіть текст

#### ARTIFICIAL INTELLIGENCE TECHNIQUES IN MEDICINE AND HEALTH CARE

Now-a-days, researchers are increasingly looking into new and innovative techniques with the help of information technology to overcome the rapid surge in health care costs facing the community. Research undertaken in the past has shown that artificial intelligence (AI) tools and techniques can aid in the diagnosis of disease states and assessment of treatment outcomes. This has been demonstrated in a number of areas, including: help with medical decision support system, classification of heart disease from electrocardiogram (ECG) waveforms, identification of epileptic seizure from electroencephalogram (EEG) signals, ophthalmology to detect glaucoma disease, abnormality in movement pattern (gait) recognition for rehabilitation and potential falls risk minimization, assisting functional electrical stimulation (FES) control in rehabilitation setting of spinal cord injured patients, and clustering of medical images.

There have been a number of artificial intelligence (AI) tools developed over the past decade. Many of these have found their applications in medical and health-related areas. Commonly applied AI techniques can be listed as:

- Neural Networks
- Fuzzy Logic
- Support Vector Machines
- Genetic Algorithms
- Hybrid Systems

#### Neural Networks

Artificial neural networks work much like the human brain and have the ability to learn from training data and store knowledge in the network. In the learning phase, it maps relation between inputs and the corresponding expected outputs. During the learning phase, knowledge is acquired and stored in the network in the form of synaptic weights and biases. This knowledge is used to make future predictions in response to new data or inputs during the testing phase.

#### Fuzzy Logic

Fuzzy sets were introduced by Zadeh (1965), and they deal with imprecise and uncertain information or data. Naturally, this has been found suitable for many medical and health-related problems, as it relates to the way humans think.



### **Support Vector Machines**

Support vector machines are a relatively new machine learning tool and have emerged as a powerful technique for learning from data and solving classification and regression problems. This has been particularly effective for binary classification applications.

### **Hybrid Systems**

Recently, researchers have started looking into ways of combining various AI tools in order to maximize performance of the AI system. As a result, hybrid systems have evolved. Hybrid systems have been applied in many applications, including some biomedical areas.

### **Medical Decision Support Systems**

Medical decision support systems (MDSS) are designed to construct a knowledge database by way of receiving a list of symptoms as input features and their corresponding disease type(s) as the output. Such a developed symptom-to-disease mapping system then facilitates the diagnostic process by generating new responses due to a new set of symptoms. Neural networks have been used to aid MDSS.

### **Cardiology**

Several studies have applied neural networks in the diagnosis of cardiovascular disease, primarily in the detection and classification of at-risk people from their ECG wave-forms. Scientists have applied neural networks to classify normal and abnormal (pathological) ECG waveforms. The abnormal ECG recordings had six different disease conditions. The classifier was able to recognize these waveforms with 70.9% accuracy.

### **Electroencephalography**

AI tools, including neural networks, fuzzy clustering and SVMs, have been shown to be useful for analyzing electrical activity of the brain, the electroencephalogram (EEG) signals. Features extracted from EEG recordings of the brain have been used with AI tools for improving communication between humans and computers and also for effective diagnosis of brain states and epileptic seizures.

### **Ophthalmology**

Neural networks have been shown to be an effective diagnostic tool to identify glaucoma disease. Glaucoma is more prevalent in older age and can cause loss of vision. Several neural network models were tested using 715 cases, including 518 glaucoma cases, and they reported 90% recognition accuracy with two hidden

layer networks and training with 80% of the input data. In an effort to compare effectiveness of different AI techniques in recognizing glaucoma diagnosis, scientists used standard automated perimetry data to compare classification performance of several classifiers including multiplayer perceptron and support vector machines (SVM). Machine classifiers were found to perform superiorly in the classification tasks, whereas SVM showed significantly improved performance compared to a multiplayer perceptron. A self-organizing fuzzy structure has also been developed and applied to predict the onset of hypoglycemia for diabetic patients.

### **Gait Analysis and Rehabilitation**

Gait is the systematic analysis of human walking. Various instrumentations are available to analyze different aspects of gait. Among its many applications, gait analysis is being increasingly used to diagnose abnormality in lower limb functions, and also to assess the progress of improvement as a result of treatments and interventions. Recently, neural networks and fuzzy logic techniques have been applied for gait pattern recognition and clustering gait types. Gait analysis is being increasingly used in rehabilitation settings, and also combining with AI techniques to improve gait control and functionality. Fuzzy logic has also been recently applied with great success in: clustering children gait with and without neurological disorder and also detection of gait events such as the foot contact and take-off during walking in the analysis of paraplegic gait.

Support vector machine (SVM) has recently been applied to classify young and elderly gait patterns.

There are plenty of future challenges for AI to be routinely used in medicine and health. The use of automated medical decision support system in routine use in the clinic would make a significant impact on our health care system.

One possibility is that health care in the future will be built on knowledge networks. Applications of telemedicine and informatics in health care can help to provide support to patients in remote areas, and to share expert knowledge or limited resources. Furthermore, effective networking between informatics and biomedical engineering can also help to complement each other's knowledge and to fight in partnership the various challenges faced by the medical and health care systems.

## **II.**

### **A) Виберіть визначення наданих термінів та запишіть їх:**

*Hybrid Systems; Fuzzy Logic; Support Vector Machines; Gait Analysis;  
Neural Networks*

1. The concept of fuzzy logic is that many classes in the natural environment are fuzzy rather than crisp. It deals with imprecise and uncertain data.
2. Analysis of human walking patterns. It is used to analyze abnormality in lower limb problems and assess treatment or intervention outcomes.
3. Integration of two or more artificial intelligence tools to improve efficiency or system performance.
4. Neural networks resemble the human brain and to store knowledge during training and use this for decision making during testing phase.
5. Introduced Vapnik and capable of learning from data for solving classification and regression problems.

**В) Дайте письмову відповідь на запитання:**

1. What is reason of Hybrid Systems appearance ?
2. What AI tools have been shown to be useful for analyzing electrical activity of the brain ?
3. Are continued developments in AI fields providing much impetus that is needed to tackle the many problems of the health care system ?
4. How are neural networks applied ophthalmology ?
5. Who were Fuzzy sets introduced by ?

**С) Складіть п'ять запитань до тексту.**

**III. Поставте дієслова у дужках у необхідному часі, письмово перекладіть умовні речення та речення з «I wish»:**

1. If you (to have) more practice in English, you (to be able) to communicate with foreigners.
2. If you (to understand) the rule, you would have written the paper successfully.
3. If you (to do) your morning exercises every day, your health would be much better.
4. If I had lived two hundred years ago, I (can not use) a computer.
5. If you (not to smoke), you would feel more energetic.
6. If you don't understand the word (to use) a dictionary.
7. I wish I (to know) a lot of foreign languages.
8. My brother plays computer games all the night. I wish he (not to waste) so much time.
9. What I said was stupid. I wish I (not to say) anything.
10. We didn't have time to see all around in London last year. I wish we (to have) more time.

**IV. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на різні значення дієслів *should, would*:**

1. It seemed necessary that his friends should be kept away from interfering with his work.
2. After lunch it was proposed that they should all go to the lake.
3. It's not likely that they should exchange addresses.
4. It was agreed that he should be first to speak.
5. It's only natural that a mother shouldn't wish to be parted from her children.
6. It was very odd that we should have met in my aunt's house.
7. The work of banks depends upon computer terminals for millions of daily operations. Without these terminals, records of deposits and withdrawals would be difficult to maintain and would be impossible to make inquiries about the current status of customer accounts.
8. It would have been impossible to make such calculations without computers.
9. Would you be so kind to bring me a cup of coffee ?
10. You shouldn't take part of your child against neighbours, teachers and policemen. They aren't all prejudiced against him.
11. When he gets into trouble, you shouldn't apologize for yourself by saying, "I never could do anything with him".

**V. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Infinitive*:**

1. Fault tolerance is our best guarantee that high confidence systems will not betray the intentions of their builders and the trust of their users by succumbing to physical, design or human-machine interaction faults, or by allowing viruses and malicious acts to disrupt essential services.
2. Attempts to invent a gear, that would be able to make calculations root deeply into the human history.
3. Memory is used to store information for further extracting and transformation.
4. The time, that computer needs to find the information, is called access time.
5. It has become a tradition to consider a sequence of bits equal to eight.
6. Kilobyte (KB) is also used to measure the amount of information.

**VI. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Participle*:**

1. At home or at work, applications software, called a word processing gram, enables

- you to correct or modify any document in any manner you wish before printing it.
2. Using the CRT monitor as a display screen, you are able to view what you have typed to correct mistakes in spelling or grammar, add or delete sentences, move paragraphs around, and replace words.
  3. Personal computers are having and will continue to have a profound influence upon the classroom, affecting both the learner and the teacher.
  4. Microcomputers are making their way into classrooms to an ever-increasing extent, giving impetus to the design of programmed learning materials that can meet the demand of student and teacher.
  5. Two important types of uses for personal computers in education are computer-managed instruction (CMI), and computer-assisted instruction (CAI).

**VII. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на використання *Gerund*:**

1. Automatic hyphenation is the splitting of a word between two lines so that the text will fit better on the page.
2. Computers help in making different decisions and in management of economy.
3. At present a great deal of the work force of most countries is engaged in creating, processing, storing, communicating and just working with information.
4. Also computers are applied for automatic piloting and automatic navigation.
5. Weather forecasting, library information services can benefit from computers too.

**VIII. Перепишіть та письмово перекладіть на українську мову наведені нижче речення, звертаючи увагу на різні значення виділених слів (див. зразок до вправи VIII):**

1. He had to work hard for not to fail in his exam.
2. The plant died as a result of my son overwatering it.
3. The research is not considered to be accurate because it has been done with no respect to errors.
4. No matter what improvements are made, it will not be possible to finish our experiment in time.
5. Weather patterns have been changing recently due to the global warming up.
6. If you run after two hares, you will catch neither.

## Література

1. Andriessen Erik, de Rooij Joris, Verburg Robert. Analyzing the Quality of Virtual Teams //Encyclopedia of Information Science and Technology. – USA, 2005.-Vol.1-5. – P. 117-122.
2. Begg Rezaul. Artificial Intelligence Technoques in Medicine and Health Care //Encyclopedia of Information Science and Technology. – USA, 2005.-Vol.1-5. – P. 157-163.
3. Burgess Stephen, Tatnall Arthur. Actor-Network Theory and Adoption of E-Commerce in SMEs //Encyclopedia of Information Science and Technology. – USA, 2005.-Vol.1-5. – P. 38-42.
4. De Antonellis Vittorio. A Web-Geographical Information System to Support Territorial Data Integration //Encyclopedia of Information Science and Technology. – USA, 2005.-Vol.1-5. – P. 33-37.
5. Johannesson Paul. A Language/Action Based Approach to Information Modelling //Encyclopedia of Information Science and Technology. – USA? 2005.-Vol.1-5. – P.7-10.
6. Kieler Mark, West Michael J. Archival Issues Related to Digital Creations //Encyclopedia of Information Science and Technology. – USA? 2005.-Vol.1-5. – P.152-157.
7. Schelin Shannon Howle, A Primer on E-Government //Encyclopedia of Information Science and Technology. – USA? 2005.-Vol.1-5. – P. 11-15.
8. Murphy R. English Grammar in Use. A self-study reference and practice book for intermediate students.- Cambridge University Press, 1994. – 538p.
9. Naylor H. with Murphy R. Essential Grammar in Use. Supplementary Exercises. – Cambridge University Press, 1996.- 358 p.
10. Бонк Н.А., Котий Г.А., Лукьянова Н.А. Учебник английского языка. – М.: «Деконт» - «Гис», К.: «Арий», 2007.- Ч.І.- 638 с., Ч.ІІ.-510с.
11. Голицинский Ю. Грамматика. Сборник упражнений. Изд-е 4-е исправленное и дополненное. – Каро, С.-Прб., 2002.-537с.
12. Загнітко А.П., Данилюк І.Г. Найновіший англо-український українсько-англійський словник 100000.- Донецьк: «БАО», 2007.- 1119с.
13. Зубков М., Мюллер В. Сучасний словник англо-український українсько-англійський.- Харків: ВД «Школа», 2008.- 752 с.