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ЗАКЛАД ВИЩОЇ ОСВІТИ «ПОДІЛЬСЬКИЙ ДЕРЖАВНИЙ
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КАФЕДРА ІНОЗЕМНИХ МОВ**

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АНГЛІЙСЬКА МОВА ДЛЯ АСПІРАНТІВ

**Навчальний посібник
(для здобувачів ступеня доктора філософії на третьому (освітньо-
науковому) рівні вищої освіти)**

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(протокол № ____ від ____ березня 2024 року)*

Англійська мова для аспірантів: навчальний посібник (для здобувачів ступеня доктора філософії на третьому (освітньо-науковому) рівні вищої освіти) / А. О. Роляк, І. І. Гуменюк. Кам'янець-Подільський : Заклад вищої освіти «Подільський державний університет», 2024. – 115 с.

Посібник базується на комплексному підході до вивчення англійської мови наукового спрямування. Він призначений для аспірантів та науковців, які досягли певних успіхів у вивченні англійської мови і бажають її вдосконалити. Посібник орієнтований на те, щоб розвинути навички мовленнєвого характеру (монологічного та діалогічного), спілкування у науковому середовищі, ефективного читання англійської наукової літератури, сприйняття інформації на слух, академічного письма і розширити словниковий запас загальної, наукової та термінологічної лексики.

Вступ

Сучасні процеси глобалізації та інтеграції України в європейське співтовариство вимагають від молодих спеціалістів високого рівня володіння іноземними мовами. Знання іноземних мов стали «ключовою кваліфікацією» і в професійному, і у приватному житті людини. Високий рівень іншомовної підготовки аспірантів як майбутніх науковців підвищуватиме їх конкурентоздатність та сприятиме їхній мобільності на світовому ринку праці.

Посібник «Англійська мова для аспірантів» укладений на основі програми з дисципліни «Іноземна мова за професійним спрямування» для здобувачів освітньо-наукового рівня доктор філософії з економічних спеціальностей і складається з двох розділів, кожен з яких містить 5 тематичних блоків та додатків.

Метою посібника є навчання читанню та розумінню науково-популярних текстів і текстів за фахом, засвоєння загальнонаукової лексики, формування навичок говоріння з широкого кола тем академічного спілкування та навичок писемного мовлення в галузі економічної науки. Ефективне практичне оволодіння мовою забезпечується системою лексичних і комунікативних вправ, що стимулюють інтерес і творчу діяльність тих, хто вивчає мову.

Посібник призначений для підготовки докторів філософії за економічними спеціальностями Закладу вищої освіти «Подільський державний університет», а також для широкого кола тих, хто вдосконалює англійську мову в її науковому й академічному аспектах.

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SECTION 1. INTERNATIONAL SCIENCE COMMUNICATION

TOPIC 1
PRACTICAL UNITS 1, 2, 3
SCIENCE

1. Read and translate the words:

Science to survive effort to understand nature living nature describe events basis belief causes phenomenon simply circumstances still conditions search observe principle theory generalization lead to distinguish activities enable person mean found world flat round recently “eggshaped” centre universe later later hundred mean	
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unreliable discovery society improve structure environment owe leisure health longevity ability to communicate instantly to move swiftly Earth occupation open minded capable of beliefs newness, brightness freedom humanity develop	
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2. Read and translate the word combinations:

human activity; arise out of man's efforts; natural curiosity; search for order; the surrounding world; non living nature; fundamental aim of; describe the facts; look for the cause; a set of circumstances; give rise to; grow out of; in orderly fashion; secondary purpose; increased knowledge; "as it really is"; to be made up of; fundamental substances; keep pace with the times; widen the horizon; increase the extent of unexplored areas; play an important role; to gain increasing control over; to mould environment; advanced kind of thought

3. Read and translate the text.

Write a synopsis of the text in five sentences.

Text A

WHAT IS SCIENCE?

Science is first of all human activity. Sciences arouse out of man's efforts to survive, his natural curiosity, his search for order in the surrounding world. It arises from man's efforts to understand nature and himself. In science you study nature and human nature, living nature and non living nature. The fundamental aim of science is to describe the facts of nature and natural events The basis of science

is the belief that natural events have natural causes. When science looks for the cause of any given natural phenomenon, it is simply looking for a set of circumstances which gave rise to the event, circumstances which themselves grew out of a still earlier set of conditions. Science makes this search by observing facts, by organizing these facts in orderly fashion.

A secondary purpose of science is the formulation, on the basis of experimental facts, of principles and theories which are the generalizations and which will lead to new studies and increased knowledge.

What distinguishes science from other activities is that it enables person to see the world “as it really is”. This may mean different things to different persons at different times. Over the ages, science has found the world to be flat at one time, round at another and more recently “eggshaped”, to be the centre of the universe and, later only a speck in the cosmos, to be made up of four fundamental substances and, later, of more than one hundred fundamental substances.

This does not mean that science is unreliable. That means that science keeps pace with the times. Every new discovery widens the horizon and increases the extent of our contact with unexplored areas.

We all know that science plays an important role in the societies in which we live. Through technology, science improves the structure of society and helps person to gain increasing control over his environment.

To science we owe most of our comforts, our leisure, our health and longevity, our ability to mould environment, to communicate instantly and to move swiftly over the Earth.

Science is an occupation for people who are open-minded, who are capable of putting their beliefs to many tests. There is always room for freshness, newness, and brightness in it. The openness and freedom of science makes it the most advanced kind of thought humanity has so far developed.

4. Match the words with the correct definition:

1. set of circumstances	— to guide, control or influence the surrounding world.
2. to give rise to something	— we feel grateful to science for
3. in orderly fashion	— to widen and deepen the research.
4. to keep pace with the times	— to progress.
5. to increase the extent of our contact with unexplored areas	— a number of conditions or facts, connected
6. to science we owe	— with an event or person, that belong together because they are similar or complementary to each other.
7. to mould the environment	— in well arranged order....
	— to be the cause of something, to suggest.

5. Lexical revision. Commonly misused words.

Translate the sentences. Choose the correct usage with the help of a dictionary if necessary.

1. I accept/except your apology. Everyone **accept/except** John may leave.
2. When visiting a foreign country, you must adapt/ adopt yourself to the customs practiced there. The Greens plan **to adapt/ adopt** several hard to place children.
3. Because of Michael's excellent advice/advise, Bob completed a successful deal. Michael will **advice/advise** Bob to be daring.
4. The accident didn't effect/affect Thomas. The **effect/affect** on his brother, however, was great.
5. When you forget your medication, you **aggravate/annoy** your medical condition. Your forgetting **aggravates/annoys** me.
6. Call me when you are all **ready/already** to go. By the time Sue arrived we had all ready/already finished dinner.
7. (Alright is not an acceptable word.) Is it **all right /alright** to leave this window open?
8. The four of us were all together/altogether at the coffee shop. This book is **together /altogether** too long.
9. At some point, the speaker **alluded/referred** to the new opportunities in business. The speaker alluded/referred to statistics that demonstrated the increased number of small businesses.
10. I resent your allusion/illusion to my cooking as comparable with McDonald's. You have the allusion/illusion that I enjoy classical music — I don't.

Part 2. Study the lexics for writing a scientific research paper.

Chapter 1. STRUCTURE AND COMPOSITION

1. When one describes the structure of an object, one usually says that it: consists of— складається з; contains— вміщує, до його складу входять; includes— включає, вміщує — or it is formed by or is made up of— складається, сформований (з) — some structuralelements. On the other hand, one may say that certain structures form— утворюють — this object; are found in it — перебувають у ньому; occur— зустрічаються; or there are— є, перебувають.
2. These structures are called: structural elements or units — структурні одиниці або елементи; components— компоненти; constituents— складники.
3. The structure— будова, структура and composition— склад are fundamental morphological characteristics of an object. However, the structural elements may also have such characteristics as: arrangement— устрій, взаємне розміщення;

position— місце, положення;
localization— локалізація;
location— місцерозташування;
distribution— розповсюдження, поширення, розподіл;
proportion— кількісне співвідношення;
total number— загальне число, кількість;
total amount— загальна кількість;
occurrence— наявність, частотність, поширеність.

4. The structural elements of an object may be arranged:

linearly— лінійно;
radically— радикально, розходитись променями;
symmetrically— симетрично;
asymmetrically— несиметрично;
regularly— правильно, у правильному порядку;
uniformly— рівномірно;
randomly— хаотично, безладно, випадково;
concentrically— концентричними колами;
in a row— у ряд;
in a chain— ланцюгом;
in pairs— попарно;
in a spiral— по спіралі;
in a circle— колом;
in groups— групами;
in clusters — скупченнями;
in layers— прошарками;
one on top of another— один над одним;
horizontally— горизонтально;
vertically— вертикально;
along the axis— вздовж за віссю;
in the center— у центрі;
on the periphery— на периферії.

5. As to the distance between the units, they may:

be closely spaced— розташовані близько одне від одного;
evenly spaced— розташовані на однаковій відстані один від одного;
at a short (long) distance (from)— на малій (великій) відстані від;
at a distance of 3 mm (from)— на відстані 3 мм (від).

These units can be described as:

close— близькі, близько розташовані;
distant or remote— віддалені;
neighbouring— сусідні;
adjacent— суміжні;
the nearest (to)— найближчі (до).

6. A structural element within an object may:

be connected (to, with, by) з'єднаний (з, до, за допомогою);
be attached — прикріплений (до);
stretch (from ... to) — простягатися (від ... до);
occupy — займати (простір);
stem (from) — виходити (від);
go (around) — обходити, обводити;
cover - охоплювати;
overlie — лежати понад;
underlie — лежати під;
surround — оточувати — other elements.

7. As to orientation in space, a structural unit may be oriented:

upward — догори;
downward — донизу;
inward — всередину;
outward — назовні;
parallel (to) — паралельно (до);
perpendicular (to) — перпендикулярно (до);
at an angle (to) — під кутом (до);
westward — у західному напрямку;
from north to south — з півночі на південь;
to the south (of) — на південь (від);
to the center — до центру.

8. If you give a definition of an object or its part, use one of these words:

be — бути, являти собою;
represent — представляти;
be known as — бути відомим, як;
be called — називатися;
be considered (as) — вважатися, розглядатися (як).

9. General knowledge about objects or phenomena is often expressed using:

generally — взагалі, зазвичай;
it is generally known (that) — загально відомо (що);
it is generally assumed (that) — прийнято вважати (що);
it is known (that) — відомо (що).

10. Hypothetical knowledge can be expressed using:

it seems (that) — очевидно;
perhaps — можливо;
probably — вірогідно.

11. Often, one and the same idea can be rephrased in several different ways. For this use:

in other words — іншими словами, інакше кажучи; that is— тобто; or— або.

12. To contrast one idea to another, one can use:

while— в той час коли, хоча;

whereas— тоді як; but— але; however— однак.

13. On the other hand, one supplements the above idea using:

also— також; besides— крім того.

SECTION 1
TOPIC 2
PRACTICAL UNITS 4, 5, 6
ETHICS OF SCIENTIFIC COMMUNICATION

1. Read and translate the words:

achievements advice aim allow applications argue be held carry colleagues colloquium communication create decide deduction derivative developments discovery discussion distinguished essential for exchange expect experimental field follow gatherings generally held	
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investigation invitations observations opinions opportunity procedures receive references rely on request review set up share speculation subject submit symposia thorough usually workshop	
--	--

2. Read and translate the word combinations:

are reflected in citations; abstracts of papers; under the chairmanship of; group meetings; those dealing with specific problems; depend on previous research; play an important role in; scientific research; find out the details of; public knowledge; contribute to the progress of ideas; is generally achieved; exchange of views; members of the staff; guest speakers; report the progress of; to keep abreast of; present their papers;

3. Read and translate the text.

Write a synopsis of the text in five sentences, using the following expressions:

first of all
 it seems that
 moreover
 to the fullest extents
 for example
 mainly
 therefore
 furthermore
 since
 lastly
 as a rule
 as well as
 in addition to

Text A

Communication is essential for scientific research. Science is a public knowledge and the aim of a scientist is to create, criticize and thus contribute to the progress of ideas. This aim is generally achieved through scientific publications and conferences.

Articles in regular scientific journals carry from one research worker to another various discoveries, deductions, speculations and observations which are of common interest. Generally scientific papers are derivative and depend on previous research. References to other research are reflected in citations. A scientist relies on the citations to show the place of his investigation in the whole scientific structure.

Another opportunity to share and exchange opinions and information is national and international conferences and symposia. They play an important role in coordinating scientific research. Usually scientific gatherings are sponsored by the central scientific organizations. An organizational committee is set up which decides where and when a conference should be held. Invitations are sent out to organizations interested in the topics discussed, together with the requests to submit applications and abstracts of papers.

After receiving all necessary materials the committee publishes a programme of the events. At the conference the participants present their papers and listen to the reports read by others on the latest developments and the state of the art in their field. Papers on general topics are read before all the participants, those dealing with specific problems are presented at group meetings and plenary sessions held in subject areas under the chairmanship of distinguished scientists. After the hearings the discussions follow. Scientists can discuss a given problem with other experts in their field, argue with their scientific opponents, find out the details of

some experimental procedures. The materials of conferences and symposia are usually published to allow others to keep abreast of the achievements in science.

Another type of scientific meeting are a laboratory or work group seminar, colloquium or workshop. The members of the staff and guest speakers make reviews of the developments in their field and report the progress of their research. The speakers expect thorough discussion and criticism, advice and help of their colleagues. Such personal exchange of views is very essential for any scientist.

4. Match the words with their definitions

colloquium—	a) meeting for discussion, exchange of views.
conference—	b) a conference at which a particular topic is discussed by speakers.
criticism—	c) an item in a programme of a scientific gathering, a programme include, such events as plenary sessions, section meetings, seminars, workshops, round-table talks, etc.; a social programme includes such as dinners, reception excursions, tours, etc.
event—	
seminar—	
symposium—	
the state of the art —	
to keep abreast of (with)—	

workshop—	<p>d) the level or position at a given time, especially at present, of generally accepted and available knowledge, technical achievement in a particular field.</p> <p>e) a discussion group on any particular subject.</p> <p>f) a meeting for discussion.</p> <p>g) a seminar emphasizing exchange of ideas and practical methods.</p> <p>h) judgement or opinion on something, remark that finds fault.</p> <p>i) to keep up to date.</p>
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5. Lexical revision. Commonly misused words.

Translate the sentences. Choose the correct usage with the help of a dictionary if necessary.

1. I'll need one more **lead /led** pipe to complete this plumbing job. I only enjoy a race when I am in the **lead / led**. John was unfamiliar with that route, so Jules **lead / led** the way.
2. Mike needs to learn /teach how to communicate with people. Liana is patiently trying to learn /teach me to type.
3. If the customs officer finds nothing wrong with a traveler's luggage, the officer lets / leaves the traveler let / leave the area.
4. Roy was excited about his first loose / lose tooth. If you step out of line, you will loose / lose you place.
5. The manor / manner, or landed estate, dates back to feudal times in England. They don't like the manor / manner in which you respond to my question.
6. The coal minors / miners were trapped during the cave in. The young man was not allowed to enter the bar because he was a minor / miner.
7. Because of Mike's high morale / moral standards, he returned the wallet to its owner. The story of The Boy Who Cried Wolf has a morale / moral that applies to everyone. Because the war was immoral, the morale / moral of the troops was low.
8. When we drove past the skunk, the car was filled with a nauseous / nausea ated odor. The odor of the skunk nauseous / nauseated Sara.
9. The amount of paint needed to finish the job would fill a one gallon pale/ pail. Because of the long illness, Maria 's complexion was very pale / pail.
10. We past / passed the model T on the parkway. You cannot always try to recapture the past / passed.

Part 2. Study the lexics for writing a scientific research paper.

Chapter 2. A PROCESS: FACTORS, CONDITIONS AND MECHANISMS

1. Various factors and conditions may:

affect — діяти (на);

influence — впливати на;

contribute (to) — сприяти, робити внесок (у);

favour — сприятливо діяти;

hamper, interfere (with) — заважати, несприятливо діяти (на);

govern — керувати;

regulate — регулювати;

control — керувати, контролювати;

bring about — викликати;

be responsible (for) — зумовлювати;

cause — бути причиною;

produce — викликати;

play a role in — відігравати роль (у) — a process.

2. A factor may be:

major — головний;

minor — другорядний;

important — важливий;

unimportant — неважливий, несуттєвий;

(in)essential — (не) суттєвий;

primary — первинний;

secondary — другорядний;

intrinsic — властивий, внутрішній;

extrinsic — зовнішній;

environmental — (фактор) довколишнього середовища;

natural — природний;

experimental — експериментальний, лабораторний;

direct — безпосередній;

indirect — непрямий;

predominant — переважний;

single — окремих;

regular — постійний;

occasional — випадковий;

various — різноманітний.

3. These various factors affect:

mainly — головним чином;

primarily — у першу чергу;

largely — в основному;

essentially — по суті;

particularly — особливо;

in particular — зокрема, особливо, надто;

in fact — фактично, насправді;

especially — особливо;
predominantly — переважно — this or that characteristic or aspect of the process.

4. The changes that occur during a process may:
be interrelated — взаємопов'язані;
be related (to) — пов'язані (з);
be associated (with) — пов'язані (причинним зв'язком з);
be determined (by) — визначатися (чимось);
depend (on) — залежати (від);
be independent (of) — не залежати (від).

5. Factors operate by producing:
an effect (on) — вплив, дію, ефект (на);
influence — вплив;
action — дію;
change — зміну;
modification — модифікацію, видозміну;
variation — зміну, коливання.

6. A change may be:
a source (of) — джерело;
reason (for) — причина;
result (of) — результат, наслідок;
indication (of) — показання, зазначення —
another change and even may account (for) — пояснювати — the mechanism of the process.

7. A change can be described as:
considerable — значна;
noticeable — помітна;
pronounced — яскрава, виражена;
slight — незначна, невелика, слабка;
profound — глибока;
superficial — поверхнева;
temporary — тимчасова;
prolonged — тривала;
yearly, annual — щорічна;
monthly — щомісячна;
daily — щоденна.

8. The relationship or dependence — залежність — between any two

factors or any two changes can be represented— представлена — or plotted— накреслена — in a graph.

9. A curve in a graph may
go up— догори — or down — донизу;
sharply — різко;
smoothly — плавно;
exponentially — експоненціально.

A curve therefore may be exponential — експоненціальна; hyperbolic — гіперболічна; smooth — плавна, поступова; sharp — різко спрямована.

10. In a graph one value— величина — is plotted against, versus or as a function— як функція — of another value. These values may be directly or inversely proportional — прямо чи обернено пропорційні — to each other.

11. Lines or regions(areas) in a graph may represent, show or correspond to — відповідати — something.

They may:

intersect— перетинатися; overlap — збігатися, накладатися один на одного; converge — сходитися; diverge — розходитися.

The symbols denote or stand for— означають — some real data.

12. A graph is often used for comparison of theoretical and experimental data. One can say that the curves fit well— добре пасують — or that one curve fits well another, or that they show a good fitting (agreement) — показують добре сполучення, пасування, узгодженість. One circle may also vary with the other — змінюватися залежно від іншої.

TOPIC 3
PRACTICAL UNITS 7, 8, 9
INTERNATIONAL SCIENTIFIC COOPERATION: GRANTS

1. Read and translate the words:

nature attitude study apply successful scientist find out universe usually problems notice curiosity even if data available whetheror pure enjoy involve observer accurate patient persistent thought observation utilize obtain star distance mass velocity size simple lines appear spectrum sceptical rejects authority verify	
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installments tend disturb relationships complex frequently incomplete imagination act	
---	--

2. Read and translate the word combinations:

methods of thinking and acting; first of all; it seems that; is full of curiosity; direct his attention towards; satisfactory explanation; underlying relationships; even if; seem to be unconnected; improve the existing conditions; applied knowledge; trying to solve these problems; to the fullest extents; for example; trained observers; large amount of information; accurate analysis; accept statements; to be based on; complete evidence available; the sole basis of truth; check statements; make experiments carefully; the least reliable; impartial investigation; to make hypotheses; to take place

3. Read and translate the text.

Write a synopsis of the text in five sentences, using the following expressions:

- first of all
- it seems that
- moreover
- to the fullest extents
- for example
- mainly
- therefore
- furthermore
- since
- lastly

Text A

What is the nature of the scientific attitude, the attitude of the man or woman who studies and applies physics, biology, political science, chemistry, psychology, engineering, management, medicine or any other science?

What are these special methods of thinking and acting? First of all, it seems that a successful scientist is full of curiosity he wants to find out how and why the universe works. He usually directs his attention towards problems which he notices have no satisfactory explanation, and his curiosity makes him look for underlying relationships even if the data available seem to be unconnected. Moreover, he thinks he can improve the existing conditions, whether of pure or applied knowledge, and enjoys trying to solve these problems which this involves.

He is a good observer, accurate, patient and objective and applies persistent and logical thought to the observations he makes. He utilizes the facts he observes to the fullest extents. For example, trained observers obtain a very large amount of information about a star (e.g. distance mass, velocity, size, etc.) mainly from the accurate analysis of the simple lines that appear in a spectrum.

He is skeptical — he does not accept statements which are not based on the almost complete evidence available — and therefore rejects authority as the sole basis of truth. Scientists always check statements and make experiments carefully and objectively to verify them.

Furthermore, he is not only critical of the work of others, but also of his own, since he knows that man is the least reliable of scientific installments and that a number of factors tend to disturb impartial and objective investigation.

Lastly, he is highly imaginative since he often has to look for relationships in data which are not only complex but also frequently incomplete. Furthermore, he needs imagination if he wants to make hypotheses of how process works and how events take place. These seem to be some of the ways in which a successful scientist or technologist thinks and acts.

Scientific Grants

Research funding is a term generally covering any funding for scientific research, in the areas of natural science, technology, and social science. Different methods can be used to disburse funding, but the term often connotes funding obtained through a competitive process, in which potential research projects are evaluated and only the most promising receive funding. It is often measured via Gross domestic expenditure on R&D (GERD).

Most research funding comes from two major sources: corporations (through research and development departments) and government (primarily carried out through universities and specialized government agencies; often known as *research councils*).

According to the Organisation for Economic Co-operation and Development (OECD), more than 60% of research and development in scientific and technical fields is carried out by industry, and 20% and 10% respectively by universities and government.

4. Match the words with the correct definition:

1. to be full of curiosity—	a) theoretical and practical body of facts accumulated by mankind.
2. pure and applied knowledge—	b) a human being is in the smallest degree true (trustworthy) scientific means.
3. to solve the problem —	
4.to apply persistent and logical	

<p>thought—</p> <p>5. man is the least reliable of scientific instruments—</p> <p>6. to disturb impartial and objective investigation—</p>	<p>c) to find the answer (to), to explain a question proposed for solution.</p> <p>d) to be full of desire to learn or know.</p> <p>e) to use practically constantly repeated and correct reasoning of an idea (concept).</p> <p>f) to break up a fair and real (without bias or prejudice) careful search</p>
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5. Match the scientific fields with the correct definitions:

<p>1. physics</p> <p>2. biology</p> <p>3. political science</p> <p>4. chemistry</p> <p>5. psychology</p> <p>6. management</p> <p>7. medicine</p> <p>8. economics</p>	<p>a) the scientific study of the natural processes of living things</p> <p>b) the study of how people get or compete for power and how it is used in governing a country</p> <p>c) the scientific study of matter and energy and the effect that they have on each other;</p> <p>d) the scientific study of the way the human mind works and how it influences behaviour, or the influence of a particular person's character on their behaviour</p> <p>f) the scientific study of the basic characteristics of substances and the ways in which they react or combine</p> <p>g) treatment for illness or injury, or the study of this</p> <p>h) the control and organization of something</p> <p>i) a social science that studies the production, distribution, and consumption of goods and services.</p>
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6. Lexical revision. Commonly misused words.

Translate the sentences. Choose the correct usage with the help of a dictionary if necessary.

1. Many a would be bride has been left at the altar/alter. Would it be inconvenient for you to **altar/alter** your plans for this weekend?
2. The campaign director divided the state **among/between** his three most competent assistants. In many of today's homes, the care of the children is divided **among/between** the two parents.
3. You would not believe the **amount/number** of the time I have spent on the project. I wish I could refuse the **amount/number** of hours I have spent on this project.
4. Ira was **angry at/angry with** the thought of working overtime. Ira was **angry at/angry with** his boss for insisting that Ira work over time.
5. I am **anxious/eager** about the diagnosis. I am **anxious/eager** to see your new car.
6. Marlene cannot find her glasses **anywhere/anywheres**.
7. Paula looks very much **like/as** her sister. Kate swims **like/as** well as Pam does. Carl looks **like/as** if he needs a nap.
8. The **ascent/assent** to the tower was frighteningly steep. Because I value his opinion, I will not go ahead with the project without his ascent/assent.
9. This milk tastes **very /real/ awful**. She wore **very /real/ awful** pearls.
10. Linda likes to sit **besides/beside** Ellen at the table. Who, **besides/beside** Pam, is taking swimming lessons?

Part 2. Study the lexics for writing a scientific research paper.

Chapter 3. FEATURES, CHARACTERISTICS

1. An object may possess such features as:
size— величина, розмір, формат; shape— форма, профіль; area— площа;
length— довжина; width— ширина; depth— глибина; height— висота;
width— ширина; thickness— товщина; diameter— діаметр; radius— радіус;
circumference— коло;
age— вік; life time— час життя, термін придатності;
weight— вага; mass— маса;
colour— колір; smell— запах; texture— текстура;
consistency— консистенція; transparency— прозорість; volume— об'єм;
extend— протяг, простір, відстань; taste— смак;
stability— стабільність, сталість; density— густина; energy— енергія;
charge— заряд; temperature— температура; spectrum— спектр;
structure— структура, будова; composition— склад;
pattern— тип, модель, зразок, малюнок, etc.

2. As to its shape, an object may be:

square— квадратний; spherical—сферичний, шароподібний;
cubic — кубічний; cylindrical — циліндричний; triangular — трикутний;
rectangular — прямокутний; u-shaped — у формі букви “u”;
pointed — загострений; rounded — заокруглений; oval — овальний;
elongated — витягнутий; filamentous — ниткоподібний;
flat— плоский; flattened — плоский, плескатий, etc.

3. As to its size, an object may be:

macroscopic— макроскопічний; microscopic— мікроскопічний;
large— великий;
small— малий;
minute—крихітний;
medium-sized— середнього розміру;
fine— дрібний;
huge—величезний; gigantic— гігантський.

4. As to its location or distance from another object, it may be:

remote — віддалений; close— близький;
neighboring — сусідній; adjacent— суміжний; central— центральний;
peripheral— периферійний, віддалений від центру; boundary— граничний;
external (outer)— зовнішній; internal (inner) —внутрішній;
initial— початковий, вихідний; intermediate — проміжний;
terminal (final)— кінцевий, термінальний; lateral— боковий, латеральний,
торцевий.

5. As to its consistency and inner structure, an object may be:

solid —твердий; gaseous— газоподібний; liquid— рідкий;
amorphous— аморфний; crystalline— кристалічний; granular— зернистий;
porous— пористий; gelatinous — желеподібний;
fine— тонкий (за будовою);
coarse— грубий, необроблений;
homogeneous — однорідний, гомогенний;
heterogeneous—неоднорідний, гетерогенний.

6. As to other characteristics, an object may be:

light — легкий; heavy—важкий;
fast— швидкий; slow— повільний;
transparent — прозорий; opaque— непрозорий;
soft— м'який; hard— твердий, жорсткий;
smooth — гладкий, рівний; wet— мокрий, вологий; dry— сухий;
warm— теплий; cold— холодний; cool— прохолодний; hot— гарячий;
old— старий; young— молодий;
ancient—давній, древній; modern, recent — сучасний, etc.

7. A quantitative characteristics may be:

maximum— найбільший; minimum — найменший;
average— середній; total— загальний, сумарний, увесь;
approximate — приблизний; exact, accurate— точний;
numerous— чисельний; abundant— чисельний, рясний;
scarce— бідний, мізерний, недостатній.

8. When you compare objects, you can see that they show some:

difference — різниця; similarity— подібність;
identity— тотожність, ідентичність — or
variation — різноманітність, різниця, коливання — of their
characteristics and characters.

9. Variation can be expressed using:

vary (in) — різнитися (за);
vary (from ... to)— коливатися, змінюватися (від ... до);
be different (from, in, by) — відрізнятися (від, за, на).
Besides, difference can be expressed using the comparative degree
of the appropriate adjectives and with such words as
unlike— на відміну (від);
in contrast (to) — у протилежність (чомусь).

10. Similarity can be expressed using:

be similar (to) — бути подібним (до), схожим (на);
be similar (in)— бути подібним (за ознаками);
be (very much) like — (сильно) нагадувати;
resemble— нагадувати (ззовні);
have something in common (with) — мати щось спільне (з);
have common features— мати спільні риси.
Besides similarity can be expressed with like — подібно,
аналогічно.

11. Identity can be expressed using:

be identical (to) — бути однаковим (з); as ... as — такий самий, як;
— with adjectives and the same ... as — той самий, що і ... — with nouns.

12. One agrees with the speaker by saying:

Yes, of course — так, звичайно;
I quite agree— цілком згодний;
quite true — цілком справедливо;
certainly— звичайно;
up to a point — до певної міри, до певної межі.

13. Disagreement or doubt are expressed using:
I don't think so — думаю, що ні;
I doubt this— сумніваюсь;
As far as I know— наскільки мені відомо;
As far as I remember— наскільки я пам'ятаю;
I have no idea— гадки не маю;
I never heard of this— не знаю, не чув про таке.

14. A statement of a general nature is often introduced by:
generally — загалом, взагалі;
generally speaking — говорячи взагалі;
general— загальний.

15. In a drawing or on a map, various things are often:
marked— позначаються — by numbers or symbols.
A symbol may denote, or stand for — означати —
or represent — зображати, представляти — a structural element
or characteristic of an object.

SECTION 1
TOPIC 4
PRACTICAL UNITS 10, 11, 12
INTERNATIONAL SCIENTIFIC VISITS

1. Read and translate the words:

successfully integrates education research final stages include carry out mainly reflect knowledge practical skills broad activities ranging from perform various types scientific staff members	
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employees different branches of science within abroad achievements recognize contributions teams collaborate worldwide promoting cooperation last investigation be conducted applicable provide attending the core subjects prepare choose advisors assist regularly meet discuss advise review each draft articles papers complete submit Academic Council further be accepted by award	
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2. Read and translate the word combinations:

final stages; acquiring skills in research; graduation paper; practical skills; particular field of science; be led out under the guidance of supervisor; scientific advisers; staff members; engage in multiple projects; branches of science; have academic degrees; have been honoured by the titles; maintain close links with; sustainable development; a great number; postgraduate students; undertake a

programme; under the supervision of; senior staff members; hold candidate or doctorate degree; prepare thesis; on the high scientific level; taking qualifying exams; make it possible for; educational environments all over the world; solving their current problems; make critical comments; defend before the Academic Council; meet all necessary requirements; higher academic degree

3. Read and translate the text.

Write a synopsis of the text in five sentences, using the following expressions:

first of all

it seems that

moreover

to the fullest extents

for example

mainly

therefore

furthermore

since

lastly

Text A

Our University successfully integrates education with research on both national and international basis. The final stages of the University programme include acquiring skills in research. The students carry out research mainly for their graduation paper, which reflects the knowledge and the practical skills in their particular field of science. Research can be led out under the guidance of a supervisor (scientific advisers).

The University has a broad programme of activities ranging from the very basic to the very practical and can perform various types of scientific research. The University professional staff members number some thousand employees engaged in multiple research projects in different branches of science within the country and abroad. Their achievements have been recognized and staff members, two thirds of whom have academic degrees, have been honoured by the presentation of titles, certificates and awards. Many of the scientists are known internationally for their contributions. Research teams, working at various scientific projects, collaborate with their colleagues abroad and maintain close links with many research institutes and universities worldwide, promoting cooperation and sustainable development of education.

A great number of postgraduate students undertake a programme of study and research under the supervision of senior staff members who hold candidate or doctorate degree. The postgraduate course lasts three years during which time the young scientists and researchers carry out their investigations and prepare thesis on

it. Their work should be conducted on the high scientific and technical level and the results of it should be practically applicable.

The postgraduate course programme provides for attending seminars and colloquiums, taking qualifying exams in the core subjects, in philosophy and English, preparing research publications and written reports on the work carried out.

The postgraduate research may be theoretical and applied, often both. The mobility programmes make it possible for a PhD students to choose their advisors in educational environment all over the world. The scientific adviser assists his postgraduate students in many ways. He regularly meets them to discuss the progress in their work and to advise them in solving their current problems. While the thesis is being written the supervisor reviews its major sections and makes critical comments on each draft. The postgraduates are assisted in preparing articles and papers on their research. When the postgraduate completes his or her thesis, he/she submits it to the Academic Council of the International Open University and International Personnel Academy and further defends it before the Academic Council. If the thesis meets all necessary requirements it is accepted by the Academic Council which takes the decision to award the postgraduate the higher academic degree.

4. Match the words with the correct definition:

<ol style="list-style-type: none"> 1. to acquire skills in research— 2. scientific adviser/supervisor— 3. ranging from very basic to very practical— 4. staff members— 5. to carry out investigations— 6. to prepare a paper— 	<ol style="list-style-type: none"> a) extending from fundamental theoretical to applied practical (research). b) those working in an establishment, institution or organization. c) to research something systematically in order to discover and interpret new knowledge. d) to prepare a scientific contribution to be read to a learned society or to be published. e) a person who holds an academic degree and guides the students and postgraduates' research. f) to gain practical knowledge and ability to conduct an investigation.
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5. Think of your own sentences with the following phrases:

<ol style="list-style-type: none"> 1. graduation paper 2. scientific advisers 3. to be honoured by 	
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4. academic degrees 5. field of science 6. current problems 7. papers 8. research 9. to undertake 10. to meet all the requirements 11. cooperation	
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6. Lexical revision. Commonly misused words.

Translate the sentences. Choose the correct usage with the help of a dictionary if necessary.

1. My car can run **farther / further on** this brand of gasoline. I can not continue this discussion any **farther / further**.
2. Gary invited fewer / less people to his office party this year. Since she moved from a house to an apartment, she has **fewer / less** space.
3. Please dress **formally/ formerly** for the wedding. I was **formally/formerly** employed by a jewelry company, but I am now working in a bank.
4. Alice performed a **well /good** job. Alice performed the job **well / good**. Alice feels **well /good** about herself (not bad). Alice feels **well / good** today (not seek).
5. The continuous, harsh, and rasping sound **grated /greated** on my nerves. A grate /greatin the sidewalk covered the opening to the sewer.
Ernest Hemingway was considered a **grate /great** writer in his own lifetime.
6. Orange juice is **helpful / healthy**. If you eat properly and exercise sufficiently, you will be **helpful / healthy**.
7. Although he did not state it directly, the candidate **implied / inferred** his opponent was dishonest. From the mayor's constructive suggestions, the townsfolk **implied / inferred** that he was trying his best to do a good job.
8. Marlene stood **in / into** her living room. Wayne came rushing **in /into** the room.
9. I think **it's / its** a fine idea. The dog wagged **it's /its** tail.
10. Mrs. Peterson always buys that **kind of / sort of / type of** meat. I like that **kind of / sort of / type of** book. This is my favorite **kind of / sort of / type of** music. (These expressions can be used interchangeably. They should never be followed by "a".)

Part 2. Study the lexics for writing a scientific research paper.

Chapter 4. A PROCESS. STAGES AND COMPONENTS

1. Natural objects are always involved— беруть участь, залучаються (до);
in some sort of process— процесу;
phenomenon— явища;
event— події, явища.

2. A process is often divided, or falls naturally, into:
states — стадії;
steps — кроки, сходинки;
levels — рівні;
periods — періоди;
phases — фази, — which all represent
a sequence of events — послідовність, (хід) подій — or
a series of consecutive changes — ряд послідовних змін.

3. A particular event may occur:
on a (certain) level — на (певному) рівні;
at a stage — на певній стадії;
in a period — у певний період;
during a phase — протягом певної фази.

4. A stage of a process can be described as:
initial — початкова вихідна;
intermediate — проміжна;
final — остання, кінцева.

5. A process may
start(with) — починатися (з);
begin (with) — починатися (з);
arise — виникати;
occur — відбуватися;
take place — мати місце, відбуватися;
go on — продовжуватися, тривати;
be terminated (by) — завершуватися (чимось);
stop — припинятися;
cease — зупинитися, припинитися.
Thus one may describe its
onset — початок, настання;
beginning — початок;
course — хід, протікання;
end — кінець;
completion — завершення.

6. If you want to point out the cause of a process, use:
arise (from) — виникати (через щось, внаслідок чогось);
result (from) — бути результатом (чогось);
be due to — бути викликаним;
be caused by — бути спричиненим.

7. Eventually, a process
results (in)— призводить до;
leads to— веде до;
is responsible (for) — викликає;
produces — призводить (до);
gives rise (to) — викликає появу або утворення — some changes.

8. The changes that occur during a process may be found to each other by different temporal relationship.

One event may go on:

concurrently (to) — паралельно (до), одночасно (з);

following — слідом (за);

after — після, за;

before— до, перед тим як;

as — одночасно, коли — another event takes place.

Besides, it may

precede — передувати;

follow — відбуватися слідом за;

accompany — супроводжувати — another event.

9. A process or its stage can be described as:

Long-term — тривалий;

Short-term — короткочасний;

completed — завершений;

incompleted — незавершений;

repeated — неодноразовий, повторюваний;

multiple — множинний, численний, осередковий;

abrupt — несподіваний, різкий;

smooth — гладкий, плавний;

preliminary — попередній;

secondary — вторинний;

continuous — безперервний;

stepwise — поступовий;

subsequent — наступний, подальший;

typical — типовий; common — загальний, звичайний (для);

local — місцевий, локальний;

extensive — просторий, численний, великий;

intensive — інтенсивний;

rapid — швидкий;

slow — повільний;

transient — перехідний.

10. During a process the objects and materials involved may:

undergo (changes) — наражатися (на зміни), підлягати (змінам);

be subjected to (effects) — підпадати під дію, вплив;

become (different) — ставати іншим;
remain (the same) — залишатися (без змін);
acquire (new features) — набувати (нових рис);
lose (some characteristics) — втрачати (деякі ознаки);
modify themselves — видозмінюватися;
change — змінюватися, мінятися, etc.

11. A process may be:

important or essential (to) — важливий, суттєвий (для об'єкта), (for) — для досягнення певної мети;
be of great (little, no) importance (to, for) — мати велике (мале, ніякого) значення (для);
be vital(to, for) — бути життєво необхідним (для);
be significant (to, for) — бути значущим (для).
It may allow (to do smth) — дозволяти (щось зробити);
provide — забезпечити;
serve (as) — служити (в якості);
serve (to, for) — служити (для).

12. When making a communication, you sometimes have to stop to check whether the audience have been following you.

You can do it by asking:

Do you follow me? — Розумієте, про що я говорю? —
or:

Is that clear enough?— Я досить чітко пояснюю?

13. Hypothetical knowledge can be expressed using:

may — можливо; must — напевно;
seem to — мабуть, певно, очевидно;
perhaps — можливо;
probably — вірогідно;
it is assumed that — вважають, що;
it is suggested that — думають, гадають, що — or
is/are assumed (to + Infinitive);
is/are suggested (to + Infinitive) with the same meaning.

SECTION 1
TOPIC 5
PRACTICAL UNITS 13, 14
SCIENTIFIC JOINT PROJECTS

1. *Read and translate the words:*

be organized various levels local subject-matter differ tremendously common approach domain investigation whatever be considered issue pursue between remotest unite diverse be systematized be devoted to certain a number of interrelated broad narrow dynamics thought evolution ideas mixed start set up function define direction discussion bulk papers be contributed publish	
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proceedings begin with plenary session end with final session as a rule be presided by well-known subsection divide sometimes milestones contribution reflect innovations ensue deliver participant engineer inventor postgraduates undergraduates testify exceedingly valuable establish issues arise	
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2. Read and translate the word combinations:

the problems under study; field of knowledge; there is always something in common between; common ground; phenomena of nature; the range of questions; in every case; the progress of advance; depending on the problems investigated; plenary session; final session; be recognized as authorities; follow the main report; attract no less attention; deal with specific problems; a limited circle of scientists; are highly appreciated by; given domain of science; corresponding fields; to a certain extent; the basic state of the branch; measurable unit of time; higher educational establishments

3. Read and translate the text.

Write a synopsis of the text in five sentences, using the following expressions:

first of all
it seems that
moreover
to the fullest extents

for example
mainly
therefore
furthermore
since
lastly
as a rule
as well as

Text A

Scientific conferences are organized at various levels — from international to local. Their subject-matter may differ tremendously but what is common for all of them is their approach to the domain of research, the methods of investigation, the problems under study. Whatever field of knowledge is considered, whatever data are analyzed, whatever issue is pursued, there is always something in common between the remotest branches of research. This common ground which unites men of science of diverse specialities in a scientific approach to phenomena of nature to be studied, analyzed and systematized.

Any scientific conference is usually devoted to a certain problem or a number of interrelated problems. The range of questions to be considered may be broad or narrow, but what is characteristic in every case is the dynamics of thought, the evolution of ideas, the progress of advance. The scientific conferences may be theoretical, practical or of mixed character depending on the problems investigated, the questions to be answered or the phenomena to be analyzed.

To start a scientific conference, an organizing committee is to be set up. Its main function is to define the direction of scientific discussions, the line of theoretical or experimental study, the bulk of the reports to be made. The papers contributed to the conference are usually published in the proceedings. The scientific conference usually begins with a plenary session and ends with a final session. As a rule, it is presided by well-known scientists recognized as authorities by the men of science of the given speciality.

Discussions that follow the main report are as interesting as the reports themselves and attract no less attention. Two sections and subsections into which any conference is usually divided, deal with specific problems, interesting to a limited circle of scientists.

The discussions of scientific conferences are highly appreciated by the scientific world; sometimes they are milestones in the given domain of science. The scientists' contributions to their corresponding fields of research reflect, to a certain extent, the basic state of the branch and those innovations that have ensued within a certain measurable unit of time. The reports delivered at the theoretical and practical conferences by its participants — scientific research workers, engineers, inventors, postgraduates and undergraduates — testify to the level of science in the given country, its scientific centres and higher educational establishments.

Exceedingly valuable are personal contacts that are established at such conferences, as well as business issues arising during and after the conference work.

4. Find the words or phrases with the same meaning:

1. educational establishments	a) relations
2. well-known scientists	b) restricted spheres
3. to define the direction	c) the majority of news
4. investigation	d) facts
5. tremendously	e) distant sections
6. remote branches	f) extremely
7. data	g) research
8. the bulk of the reports	h) to identify the way
9. limited circle	i) famous scholars
10. personal contacts	k) learning institutions

5. Match the scientific conference participants with the correct definitions:

1. researcher	a) a teacher of the highest rank in a department of a British university, or a teacher of high rank in an American university or college;
2. engineer	b) someone who has invented something or whose job is to invent things;
3. inventor	c) a person who studies a subject in great detail, especially at a university
4. postgraduate	d) someone who teaches at a college or university
5. undergraduate	e) a student who is studying for their first degree at a college or university
6. scholar	f) a person whose job is to design or build machines
7. professor	g) someone who studies a subject, especially in order to discover new information or reach a new understanding
8. lecturer	h) a student who has already received one degree and is studying at a university for a more advanced degree

6. Lexical revision. Commonly misused words.

Translate the sentences. Choose the correct usage with the help of a dictionary if necessary:

1. If we work together, perhaps we can end the war and achieve a truly lasting **piece / peace**. In time, we will be paying an extremely high price for a **piece / peace** of paper.
2. Older children frequently **prosecute / persecute** their younger siblings. If you do not return the stolen money, you will be **prosecuted / persecuted**.
3. The items written in a young girl's diary are very **personnel / personal**. When applying for a job at a large company, you must go to the **personnel / personal** office.
4. The meaning is quite plain / plane and requires no further explanation. The plain / plane and smoothed smoothly. Please plain / plane the wood so that I can build a birdhouse from it.
5. Studying computer programming is a **practical / practicable** plan in today's job market. Computerizing payroll is a **practical / practicable** business decision.
6. A preface always **precedes / proceeds** the body of the book. Don't let me interrupt you; **precede / proceed** with your work.
7. A school is as good as the teachers and the **principal / principle**. The **principal / principle** actors in the play remained for a final rehearsal of the second act. The **principal / principle** upon which many simple machines are based is frequently the lever.
8. As the campers lay down for the night, **quite / quiet** settled over the campsite. That is **quite / quiet** a strong accusation.
9. When we **raise / rise** the flag of the game, everyone will **raise / rise**.
10. The chairman requested committee members to **sit / set** down. The artist **sit / set** his clay on the workbench and began to create a sculpture.

7. Translate Text B

Any scientific conference is preceded by a great preparatory work, both on the side of the organizing committee and the participants in the work of the conference.

The main task of the organizing committee is to coordinate the efforts of scientists in the necessary direction, on the one hand, and to accommodate them as comfortably as possible, on the other hand. The problems of hotel, transport, eating and leisure facilities are entirely within the competence of the organizers of the conference. It is no less important to provide the reporters with the corresponding technical facilities, such as audio-visual aids, demonstration systems, and other auxiliary means of recording, storing and reproducing information.

Part 2. Study the lexics for writing a scientific research paper.

Chapter 5. A RESEARCH METHOD: APPLICATION AND GENERAL EVALUATION

1. Research is always done using:

a method — метод; technique — методика, техніка виконання;

procedure — процедура, операція, прийом;

approach — підхід, метод;

way — спосіб; (a) means — засіб.

2. Research methods can be subdivided into:

experimental — експериментальні; theoretical — теоретичні;

field — польові

observational — спостереження, etc.

3. The following procedures constitute most of the laboratory and field methods:

observation — спостереження;

sampling — збирання та відбір зразків;

selection — відбір, вибір; detection — визначення наявності або відсутності, детектування, виявлення;

identification — (якісне) визначення, ідентифікація;

determination — (кількісне) визначення; measurement — вимірювання;

examination — огляд, обстеження; treatment — обробка (хімічна, механічна);

storage — накопичення, зберігання; recording — запис, реєстрація інформації;

record-keeping — ведення записів чи журналів;

data processing — обробка даних; counting — підрахування, облік кількості;

data refinement — уточнення даних; registration — реєстрація, запис, облік.

4. The following operations may be involved in theoretical methods:

calculation — (аналітичний) обрахунок, розрахунки, обчислення;

computation — чисельне обчислення, чисельне обрахування;

approximation — наближення, апроксимація; consideration — міркування;

assumption — припущення; modelling — моделювання (математичне).

5. Most experimental and theoretical procedures can:

be made — проводитись; conducted, carried out — проводитись, вестись;

performed — виконуватись.

6. By using a method one can obtain or get — отримувати — some results

or data — дані, результати. One can also find — виявити, знайти;

reveal — виявити, вияснити;

produce — викликати, отримати — an effect, a change etc.

7. To emphasize what a method is capable of doing one can say that it allows (to) — дозволяє; permits (+ noun or infinitive) — дозволяє; provides — забезпечує; prevents — заважає, запобігає, відвертає; enables — дає можливість, etc.

8. A method may possess the following features:
accuracy — точність; reliability — надійність;
effectiveness — ефективність; convenience — зручність;
feasibility — практичність, можливість застосування; sensitivity — чуйність.
Every method has its own —
limitations — недоліки, обмеження; merits — достоїнства;
demerits — недоліки; advantages (over) — переваги (над, у порівнянні з);
promise or potentiality — мати велике майбутнє, перспективи
або потенційні можливості.

9. From the point of view of these features a method can be described as:

accurate — точний;
reliable — надійний;
effective — ефективний;
foolproof — безпомилковий, надійний;
sensitive — чутливий;
convenient — зручний;
feasible — реальний, який можливо втілити на практиці;
practicable — практичний, зручний; indispensable — незамінний,
обов'язковий;
useful — корисний;
valuable — цінний;
adequate — повноцінний, відповідний, достатній;
promising — перспективний, багатообіцяючий;
satisfactory — задовільний;
conventional — загальноприйнятний;
standard — звичайний, стандартний;
current — сучасний, теперішній;
available — наявний, доступний;
out-of-date — застарілий;
useless — непотрібний, від якого немає користі;
direct — прямий, безпосередній;
indirect — непрямий, опосередкований;
inaccurate — неточний;
inconvenient — незручний, скрутний;
unsatisfactory — незадовільний;
inadequate — той, що не відповідає вимогам;
time-consuming — такий, що забирає багато часу;
pains-taking — той, що вимагає багато зусиль;
elaborate — ретельно розроблений;

unique — унікальний;
the only — єдиний.

10. The role a particular operation plays in a method can be described as
essential — суттєва;
leading — провідна;
major — головна;
important — важлива;
unimportant — неважлива;
negligible — така, якою можна знехтувати;
minor — неважлива, другорядна.

11. Every method is used — використовується;
is applied — застосовується;
finds application — знаходить застосування;
is coming into use — починає застосовуватись, отримує використання.

12. Methods are applied for this or that
study — вивчення, дослідження;
investigation — розслідування, дослідження;
field, area, realm — галузь (дослідження);
science — наука;
engineering — техніка.

SECTION 2. SCIENTIFIC PRACTICE
TOPIC 6
PRACTICAL UNITS 15, 16, 17
ACADEMIC ENGLISH

1. Read and translate the words:

annoy annoying appropriate aspirations behaviour between brief chairman clear coach concrete contribute dignity discretion duration endeavour excursions expect face hope instead of intelligently introductions isolated limited to listeners meals necessary participants pleasure quick-tempered. reason receptions remember represent self-centered successful timidity	
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try unfamiliar useless voice wholeheartedly wish	
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2. Read and translate the word combinations:

Introduce yourself; to stay in an ivory tower; ready to listen to the ideas of others; guiding the proceedings successfully; familiarize yourself with the rules; to ensure the success of a congress; causing difficulties; draw the greatest benefit from; make use of your notes; overstep your allotted time; well-prepared impromptu speech; bits of advice; change your mind; to be translated into your mother tongue; with a view to respecting someone; to display your talents; to be in the same position as

3. Read and translate the text.

Write a synopsis of the text in five sentences.

Text A

Here are some bits of advice to be successful at an international meeting.

At an international meeting you do not only represent yourself, your own aspirations or even your own professional organization. You are also representing your country and should endeavour to do so with appropriate dignity.

The only way of participating in an international congress is to do so wholeheartedly and intelligently. It is the behaviour and active participation of the congress goers which above all ensures the success of a congress. Don't be the type of participant who cannot tell about himself.

Think about what you hope from the meeting. Remember that its duration is limited to a few days. Remember that the other participants expect you to contribute something. Be active, ready to listen to the ideas of others. Don't be self-centered or quick-tempered. Familiarize yourself with the rules of the congress, but with a view to respecting them, not to causing difficulties.

Do not stay in an ivory tower, but do not take part in discussions just for the pleasure of hearing your own voice or of having your name written down in the minutes.

Make sure that by your own behaviour you are helping the chairman and other organisers in their difficult task of guiding the proceedings successfully to concrete conclusions, in an atmosphere of cooperation and friendship between the participants of each country. Contact with the other participants.

If you wish to draw the greatest benefit from an international congress, make contact with persons whom you already know, but also make a point of meeting as large a number of unfamiliar faces as possible.

Take advantage of meals, receptions and excursions, change to another group instead of staying with your compatriots, or at the same table, or in the same coach.

Discretion is all very well, but timidity is useless and annoying.

Remember that others are in the same position as you, and many may be even more isolated. Introduce yourself to other people and make as many introductions as possible between other participants. Taking part in discussion be clear and brief. Don't overstep your allotted time. This may annoy the chairman and other participants. Make use of your notes but don't simply read them out. A well-prepared impromptu speech will interest listeners far more than one read from notes.

Speak the official congress language you know best and don't try to display your multilingual talents. It should never be necessary for you to be translated into your mother tongue.

Don't change your mind without good reason.

4. Match the words with their definitions

<ol style="list-style-type: none">1) advantage2) compatriots3) conclusions4) cooperation5) discussion6) friendship7) language8) meeting9) multilingual10) to change your mind11) unfamiliar	<ol style="list-style-type: none">a) involving several different languages;b) a system of communication which consists of a set of sounds and written symbols which are used by the people of a particular country or region for talking or writing;c) people talk about it, often in order to reach a decision;d) the state of being in a better position than others who are competing against you;e) people from your own country;f) an event in which a group of people come together to discuss things or make decisions;g) ending of something that happened or written;h) assistance or willingness to assist;i) a relationship between two or more friends;j) you know nothing or very little about it, because you have not seen or experienced it before;
---	--

	k) you change a decision you have made or an opinion that you had
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5. Lexical revision. Commonly misused words.

Translate the sentences. Choose the correct usage with the help of a dictionary if necessary.

1. The *vain / vane / vein man* peered at his reflection in every window as he strolled down the street. A rooster is the traditional weather vain /vane / vein symbol. *Vains / vanes / veins* are passage ways that carry deoxygenated blood to the heart.
2. *Vale / veil* is an uncommonly used synonym for valley. The mourning woman hid her grief behind her *vale / veil*.
3. The smaller children were told to *wade / weighed* near the shore. The clerk *wade / weighed* and priced the fresh vegetables.
4. If you measure your *waste / waist* before you go to buy the pattern, you will avoid much confusion. Don't *waste / waist* precious time gossiping on the phone.
5. Tomorrow morning the general *weather / whether* conditions will determine the distance of our first day's hike. *Weather / Whether* or not you wish to pay taxes, you must.
6. The teacher asked, "*Whose / who's* responsible for clean up today?" We must determine *whose / who's* turn it is.
7. Kurt Vonnegut *rights / writes / rites* excellent fiction. Their attorney explained the family's *rights / writes / rites* in the lawsuit. The religious *rights / writes / rites* of many an Indian tribe are an impressive part of their culture.
8. Where is *your / you're* car parked? *Your / You're* attempting something that's too difficult for you.

Part 2. Study the lexics for writing a scientific research paper.

Chapter 7. AN INVESTIGATION: THE STATEMENT OF THE PROBLEM. INTERPRETATION OF THE RESULTS

1. An investigation can be discussed orally or in writing and the main genres in which this is normally done are:
paper — доповідь, стаття;
article — стаття (огляд, науково-популярна);
report — звіт, повідомлення (про хід роботи), викладення результату;

progress report — звіт про хід роботи, звітна доповідь;
review paper — оглядова доповідь чи стаття;
talk — виступ, повідомлення;
discussion — дискусія, обговорення.

2. A paper may:

consider— розглядати;
discuss— обговорювати;
present — викладати, представляти;
concern — торкатися;
be concerned (with) — розглядати, торкатися;
deal (with) — мати справу (з) — some problems or questions.

Besides it may:

give a description (of) — подавати опис;
give an account (of) — давати опис, викладення;
give a review (of) — надати огляд, узагальнення;
or report — повідомляти про — some results.

3. The problem in question may be considered by the author:

in detail — детально; comprehensively — всебічно; thoroughly — ретельно;
carefully — уважно, прискіпливо; extensively — широко — or it may be
just outlined — охарактеризувати, окреслити у загальних рисах —
or mentioned in passing — згадано мимохідь, побіжно.

4. The period of time covered by a review of recent contributions can be expressed
using: in recent years — останніми роками; lately — останнім часом;
over (during) the last (past) few years — за (протягом) останніх (минулих)
кількох років; over (during, in) the past decade — протягом останнього
десятиліття.

5. When giving a review of earlier work, you may have to:

refer to — посилатися на;
mention — згадати;
cite — наводити, цитувати —
or list — перераховувати — several works by other investigators.
References to other authors can be made using:
according to — згідно з (кимось, чимось);
in somebody's theory (method) - згідно з теорією (за методом) певного автора;
as stated by — як стверджує (хтось);
in the author's opinion — на думку автора.

6. When considering a particular contribution, one may say that the author:

found — знайшов, встановив, виявив;
showed — показав;
discovered — відкрив, зробив відкриття;

observed — спостерігав, помітив;
developed — розробив, розвинув (ідею, метод, теорію);
designed — сконструював;
suggested — запропонував;
solved — вирішив;
pointed out — підкреслив;
paid attention to — звернув увагу на — something.

7. The author may also have:

assumed or suggested — припустити, зробити припущення;
believed — вважати;
considered — розглядати, вважати;
predicted — передбачати;
treated something as — вважати, трактувати щось як;
explained — пояснювати;
interpreted — тлумачити, інтерпретувати;
recognized — визнавати,
concluded — дійти висновку — something.

8. The result one obtains in one's research may

show — показувати;
indicate — вказувати на;
evidence for — свідчити на користь чого-небудь;
evidence against — свідчити проти чого-небудь, протирічити;
suggest — наводити на думку, припускати, передбачати;
support — підтримувати;
confirm — стверджувати — something.

9. Using the obtained results as a basis, one can

make a comparison — зробити порівняння, пропозицію;
assumption — припущення;
evaluation — (надати) оцінку;
emphasis — підкреслити;
conclusion — (дійти) висновку;
attempt — (зробити) спробу;
prediction — (висловлювати) передбачення, прогноз.

10. When one tries to interpret the obtained result, one often has to compare it with available data. From this comparison one may conclude that the result

agrees well — добре узгоджується, збігається (з);
fits — відповідає, збігається;
disagrees (with) — розходиться, не збігається; differs (from) — відрізняється (від); differs in — відрізняється (за ознакою); differs by — відрізняється на певну величину;
is the same as — є таким самим як;

is similar (to) — схожий на, подібний до;
contradicts — протирічить;
refuses — спростовує;
questions — ставить під сумнів — other windings.

11. A result can be described as good — позитивний; precise, accurate — точний; reliable — надійний; unambiguous — однозначний; promising перспективний, багатообіцяючий; encouraging — обнадійливий; satisfactory — задовільний; preliminary — попередній; doubtful — сумнівний; poor — поганий.

12. As a result of investigation some aspects of a given problem have become clear — прояснилися, стали зрозумілими, — but others still remain obscure — все ще залишаються неясними.

These ideas can be expressed using:

remain unclear — залишатися неясним;

remain unsolved — залишатися невирішеним;

be well understood — бути досить добре вивченим, зрозумілим;

be poorly understood — бути не досить вивченим;

be far from being solved — бути далеко не вирішеним.

The latter can also be expressed with:

“require further effort” — потребувати подальших зусиль — or require better methods (equipment) — потребувати більш досконалих методів (обладнання).

SECTION 2
TOPIC 7
PRACTICAL UNITS 18, 19, 20
SCIENTIFIC ESSAY AND SCIENTIFIC METHOD

1. Read and translate the words:

abandonment acceptance accounts adopt advances amount of application apply become collection data data emotional establish	
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<p> eventually evidence explanation govern hypotheses increase investigation knowledge known majority of modification natural obtained obvious offer particular people phenomena principally procedure propose prove rather reaction recognition recognize relevant repeat reputation satisfactorily satisfactory seem similar solution step substantiating sway think about thus true well defined </p>	
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2. Read and translate the word combinations:

It should be noted that; working principles of science; emphasis passed from; special sequence of procedures; discarded as the result of the test experiments; the

rank of a theory; may be listed as follows; performance of test experiments; be accepted as true; in the light of later evidence; be set up; coming to a conclusion; constantly check their conclusions; be guided solely by the results; for instance; to advance the hypothesis; observed facts; in general; until an explanation is found; it seems clear

3. Read and translate the text.

Write a synopsis of the text in five sentences.

As man's knowledge of natural phenomena increased, there came a time when he recognized that his growing knowledge of nature was the result of his application of a particular method of investigation. It seemed clear that a special sequence of procedures was applied to establish the working principles of science. The emphasis passed from the knowledge itself to the method by which that knowledge was obtained. This rather well-defined procedure has come to be known as the Scientific Method.

The steps in the procedure may be listed as follows:

First— the recognition of the problem. Second— collection of relevant facts or data. Third— analysis of data and proposing a solution (i. e. a hypothesis). Fourth— performance of test experiments. Fifth— acceptance, modification or abandonment of the hypothesis in the light of the results of the test experiments.

If the hypothesis is discarded as the result of the test experiments, a new one will be set up and steps three, four and five will be repeated until an explanation is found which accounts satisfactorily for all the known experimental facts. As the amount of substantiating data becomes larger and larger, the hypothesis advances to the rank of a theory and eventually may be accepted as true.

It should be noted that in general one adopts first the most obvious hypothesis, that is, the one that at the moment seems to offer the simplest explanation of the observed facts. This hypothesis may or may not prove to be satisfactory in the light of later evidence.

In concluding about any hypothesis, the true scientists are swayed only by experimental evidence. They are not, for instance, governed principally by what they or anyone else want the result to be, by the reputation of the man who advanced the hypothesis, by what the majority of people think about it, or by any similar emotional reaction to the problem. They will constantly check their conclusions and hypotheses by experiment and be guided solely by the results thus obtained.

4. Match the phrases with their definitions

1. sequence of procedures	— hypothesis gradually changes into a theory.
2. the emphasis passed from ... to	— number of facts that support hypothesis;
3. satisfactorily for	— something became more important
4. of amount of substantiating data	
5. hypothesis advances to the rank of a	

theory	than which accounts; — the regular order of doing things; — which is a good explanation.
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5. Match the words with their synonyms

Experiment	Acceptably
Evidence	Assume
Reaction	Assumption
Majority	Comprehension
Hypotheses	Concept
Conclusion	Correct
Data	Event
Theory	Facts
Amount	Number
Knowledge	Predominance
Phenomena	Priority
Emphasis	Proof
To adopt	Reasoning
Satisfactorily	Response
True	Test

6. Lexical revision. Commonly misused words.

Translate the sentences. Choose the correct usage with the help of a dictionary if necessary.

1. Our youngest child was **born/borne** last month. John, has **born / borne** the burden by himself for long enough.
2. Mickey borrowed the soldering iron **from /off** Allen.
3. I can **borrow /lend / loan** you some money. Can I **borrow /lend /loan** your car? I took a **borrow /lend /loan** from the bank.
4. I prefer a bicycle with a foot brake /break. Because he didn't **brake /break** in time, Paul crashed into the tree. If you are not careful, you **will brake /break** that dish.
5. Some fortunate people **can /may** arrange their time to include work and pleasure. You **can /may** hunt deer only during certain seasons.
6. A) Roy has 90 % of the necessary **capitol /capital /Capitol** for his new business venture.

- B) Trenton is the *capitol /capital /Capitol* of New Jersey.
 C) New Jersey's *capitol /capital /Capitol* building is in Trenton.
 D) Did you visit the *capitol /capital /Capitol* when you were on WashingtonD.C.?

7. An attorney often *cites/sights /sites* previous cases that support his argument. One of the most beautiful *cites/sights /sites* in the country is the Grand Canyon. The alternative school will be built on this *cite/sight /site*.

8. I find this *coarse/course* fabric to be abrasive. That is an acceptable *coarse /course* of action.

9. Rice nicely *complements /compliments* a chicken diner. I'd like to *complement/compliment* you for doing such a thorough job.

10. I will *communicate with (call, write, speak) / contact(touch)* you in the morning. Superglue adheres on *communicate /contact*.

8. Reading and Grammar Practice. Revision of Passive.

a) Read the text and be ready for a comprehension check up.

It is sometimes said that there is no such thing as the called “scientific method”; there are only methods used in science. Nevertheless, it seems clear that there is often a special sequence of procedures which is involved in the establishment of the working principles of science. This sequence is as follows: (1) a problem is recognized, and as much information as possible is collected; (2) a solution (i.e. a hypothesis) is proposed and the consequences arising out of this solution are deduced; (3) these deductions are tested by experiment, and as a result the hypothesis is accepted, modified or discarded.

b) Check up for comprehension.

1. Find two sentences which express two different viewpoints on the existence of “scientific method”.
2. What words show that the first sentence is an opinion?
3. What words show that these viewpoints are in opposition?
4. Find the words equivalent to “scientific method”.
5. What procedure does the scientist follow in his research?

Part 2. Study the lexics for writing a scientific research paper.

Chapter 7. DISTRIBUTION AND PROPERTIES

1. In natural or artificial conditions an object or objects may occur— зустрічатися;
 be found— бути знайденим, виявленим;
 be distributed— бути розповсюдженим — over an area — на площі — or throughout a volume — по об'єму;

be restricted (to)— бути обмеженим (у своєму поширенні чи обсязі).

2. Objects may occur in various forms:

in the free or bound state (about chemicals) — у вільному чи зв'язаному стані (про хімічні речовини);

in groups — групами;

in pairs— попарно;

singly— поодинокі;

in combination with — у сполученні (з);

in close association (with)— у тісному зв'язку (з);

in (as) clusters— скупченнями;

as small grains— у вигляді дрібних зернин, etc.

3. As to the occurrence, objects may be found:

commonly — повсюди, звичайно;

occasionally— зрідка, випадково;

frequently— часто;

rarely— зрідка;

Accordingly, the object can be described as

common— звичайний, розповсюджений, поширений;

widespread— широко розповсюджений;

rare — рідкісний;

occasional — випадковий;

frequent — такий, що часто зустрічається;

characteristic— характерний;

typical— типовий;

representative — показовий, найбільш типовий;

predominant — переважний, домінуючий;

abundant – численний:

An environment may be, therefore,

rich— багатим — or poor— бідним — in certain objects.

4. An object may be found:

in large or small quantities (numbers, amounts) — у великих чи малих кількостях;

in trace amounts — у мікрокількостях (сліди);

in large or small proportions — у великих чи невеликих співвідношеннях.

5. As to the distribution pattern, objects may occur:

uniformly — рівномірно;

nonuniformly — нерівномірно;

regularly — рівномірно, постійно, у певному порядку;

irregularly — хаотично;

randomly — випадково, безладно.

6. An object can (is able to or capable of) — може, ладен чи здатен — show — проявляти, показувати; exhibit — демонструвати, виявляти; possess — володіти — certain properties.

7. A property may be:
characteristic (of) — характерна (для);
typical (of) — типова (для);
representative (for) — притаманна, типова (для);
specific (to) — специфічна (для);
unique — унікальна, виняткова;
intrinsic — властива, внутрішньо притаманна;
distinctive — відмінна, розпізнавальна;
common (to) — загальна (для);
general — загальна;
useful — корисна;
useless — непотрібна, зайва;
remarkable — видатна, визначна.

8. Under (in) certain conditions an object may become (different) — ставати (іншим) — or remain (unchanged) — залишатися (незмінним);
in other words, some properties depend on — залежать від — certain factors, or are determined by them — визначаються ними.

9. The conditions under which an object shows its properties can be described as:
laboratory — лабораторні;
experimental — експериментальні;
field — польові;
natural — природні;
environmental — умови навколишнього середовища;
specific — особливі, специфічні;
standard — загальні, стандартні;
certain — певні, деякі;
constant — постійні;
definite — певні, відомі;
varying — змінні.

10. The conditions can be described through some intrinsic characteristics of the object itself or through the characteristics of the environment. In either case, use the preposition at — за, при; e.g.
at (constant) temperature — при (постійній) температурі;
at (low) density — при (низькій) густині;
at (high) pH — при високих значеннях pH, — etc.

11. If the condition in which the object exhibits its property is described as a kind of medium, use the preposition *in*— в, у:
e.g. *in a solution* — у розчині;
in the medium — у середовищі;
in acids — у кислотах;
in the presence of — у присутності, etc.

12. A condition is often created by an experimentalist. Use the preposition *on*— за (умов), при, у — in the following situations:
on the addition (to) — при додаванні (до);
on heating— при нагріванні;
on cooling — при охолодженні;
on dehydration — при дегідратації;
on freezing — при заморожуванні, etc.
A similar idea is often expressed using *when* —
e.g.: *when exposed to light*— на світлі;
when exposed to air— на повітрі;
when treated mechanically— при механічній обробці.

13. Objects of the same class are similar in some properties but are different in others. The similarity or difference may be described as:
considerable — великий, значний;
slight — незначний;
some — певний, деякий;
minor — другорядний;
fundamental — основний, фундаментальний;
main, principal — головний, основний.

14. You often have to explain why the object shows this or that property. The explanation involves description of the cause — effect relationship, which can be expressed using:
because — тому що;
so — тому, таким чином;
due (to) — через, завдяки;
be due (to) — бути викликаним, зумовленим;
be responsible (for) — бути причиною, зумовлювати.
Sometimes it is convenient to begin an explanation with the introductory phrase: *The point is that...* — справа в тому, що; *or you see* — бачите, etc.

15. Reference to a specific case, especially when one wants to give an illustrative example, can be made using:
for example— наприклад;
like— подібним чином, подібно (до);
with reference (to)— (описувати щось) на прикладі (якогось одного об'єкту); *namely*— а саме

SECTION 2
TOPIC 8
PRACTICAL UNITS 21, 22, 23
SCIENTIFIC MEETINGS AND CONFERENCES

1. Read and translate the words:

the simplest form communication colleagues meetings provide formal structured coordinating symposia humanities be held regularly find workshops share exchange opinions verify ideas participants report listen to colleague latest development follow procedure until well-attended in addition to rapid letter specialized journals publish thousand especially newsworthy weekly hundred	
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society activity understand visit polite smile fail bowing rather usual behavior coat be buttoned superiors discuss patience also avoid directly offer gifts receive acceptable team criticize royalty	
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2. Read and translate the word combinations:

the simplest form; direct contact between; play an important role in; all over the world; at almost any scientific gathering; plenary sessions; section meetings; give an opportunity to; advocate the views; present the paper; the state of arts (technologies); in the field of science; take part in the discussions; express their points of view; argue with scientific opponents; find out the details; hold off announcing discoveries; make a splash; in addition to; cover all aspects; submit their work; high profile periodicals; more limited readership; branch Academies

3. Read and translate the text.

Write a synopsis of the text in five sentences, using the following expressions:

first of all
it seems that
moreover
to the fullest extents
for example
mainly
therefore

furthermore
since
lastly
as a rule
as well as
in addition to

Text A

The simplest form of scientific communication is direct contact between colleagues. Scientific meetings and conferences provide a more formal and structured form of communication. They play an important role in coordinating research. National and international conferences and symposia in all fields of science and humanities are held regularly all over the world. At almost any scientific gathering you will find people from many different countries. Plenary sessions and section meetings, seminars and workshops give scientists and researchers an opportunity to share and exchange opinions and information, to verify their scientific ideas and to advocate their views. The participants present their papers and reports and listen to the reports of their colleagues on the latest developments and the state of arts (technologies) in their field of science and technology. They can take part in the discussions that follow and express their points of view, argue with scientific opponents, find out the details of some experimental procedure.

Scientists often hold off announcing important discoveries until they can make a splash at such a well-attended meeting and press conference. Scientists also communicate with each other in writing. In addition to rapid communications such as letters, fax, and electronic mail, almost all scientific fields have specialized journals to publish the results of their research. Many thousands of special journals cover all aspects of science and technology, but if the results are especially newsworthy, scientists often submit their work to the editors of one of a few high profile periodicals such as “Science” or “Nature”, which are read weekly by hundreds of thousands of scientists. More specialised researchers will find their way to journals with more limited readership. Scientific societies, branch Academies, National Academy of Science and other professional organizations form important part of the life and activity of scientists.

Before going to an international conference abroad it is important to understand the social and scientific culture of a country you are going to visit. The following are just a few of **do's and don'ts** for scientists visiting a foreign country:

- the USA, it is polite to look people in the eye, to offer your hand, and to smile;

-in France people shake hands much more than Americans or most Europeans; if you fail to shake hands, you may be considered rude;

-in Japan and Korea **bowing**, rather than shaking hands, is usual behavior;

-in Turkey, your coat should be buttoned when you are with **superiors**;

-never discuss science over dinner in France;

-don't pass documents with the left hand in Saudi Arabia;

-in Japan it's very important to get everyone's opinion. **Patience** is a prime factor in their culture. They also avoid saying «no» directly. Offer gifts in Japan. The Japanese enjoy giving and receiving beautifully presented gifts.

-do not bring liquor to an Arab house. For many Arabs, alcohol is forbidden by religious law;

-in China expensive presents are not **acceptable** and cause great **embarrassment**. Give a collective gift from your scientific team to theirs.

-don't criticize royalty in Great Britain;

Thus, if you are aware of the customs of the country you are visiting, you will not **cause offence** or **be offended**.

4. Match the phrases with their translation

1. shake hands	a) потиснути руки;
2. be considered rude	b) дізнаватися, що кожний вважає;
3. pass documents	c) викликати велике збентеження;
4. to get everyone's opinion	d) основний фактор;
5. prime factor	e) красиво оформлені подарунки;
6. beautifully presented gifts	f) заборонені законом;
7. be forbidden by law	g) дорогі подарунки
8. expensive presents	h) знати звичаї;
9. cause great embarrassment	i) образити або образитися
10. be aware of the customs	j) вважати грубим;
11. cause offence or be offended	k) передавати документи;

5. Match the country with the nationality:

<i>Country</i>	<i>Nationality</i>
<i>Argentina</i> Australia Canada Egypt Germany India	<i>Argentinean</i>

Italy	
Saudi Arabia	
The USA	
Korea	
China	
Japan	
France	
Turkey	
Great Britain	
Sweden	
Denmark	
Switzerland	
Netherlands	

6. Lexical revision. Commonly misused words.

Translate the sentences. Choose the correct usage with the help of a dictionary if necessary.

1. Our youngest child was **born/borne** last month. John, has **born /borne** the burden by himself for long enough.
2. Mickey borrowed the soldering iron **from /off** Allen.
3. I can **borrow /lend / loan** you some money. Can I **borrow /lend /loan** your car? I took a **borrow /lend /loan** from the bank.
4. I prefer a bicycle with a foot **brake /break**. Because he didn't **brake /break** in time, Paul crashed into the tree. If you are not careful, you will **brake /break** that dish.
5. Some fortunate people **can /may** arrange their time to include work and pleasure. You **can /may** hunt deer only during certain seasons.
6. Roy has 90 % of the necessary **capitol /capital /Capitol** for his new business venture.
Trenton is the **capitol /capital /Capitol** of New Jersey.
New Jersey's **capitol /capital /Capitol** building is in Trenton.
Did you visit the **capitol /capital /Capitol** when you were on Washington, D. C.?
7. An attorney often **cites/sights /sites** previous cases that support his argument. One of the most beautiful **cites/sights /sites** in the country is the Grand Canyon. The alternative school will be built on this **cite/sight /site**.

8. I find this coarse/course fabric to be abrasive. That is an acceptable *coarse* / *course* of action.

Part 2. Study the lexics for writing a scientific research paper.

Chapter 3. DISTRIBUTION AND PROPERTIES

1. In natural or artificial conditions an object or objects may occur— зустрічатися;

be found— бути знайденим, виявленим;

be distributed— бути розповсюдженим —

over an area — на площі — or

throughout a volume — по об'єму;

be restricted (to)— бути обмеженим (у своєму поширенні чи обсязі).

2. Objects may occur in various forms:

in the free or bound state (about chemicals) — у вільному чи зв'язаному стані (про хімічні речовини);

in groups — групами;

in pairs— попарно;

singly— поодинокі;

in combination with — у сполученні (з);

in close association (with)— у тісному зв'язку (з);

in (as) clusters— скупченнями;

as small grains— у вигляді дрібних зернин, etc.

3. As to the occurrence, objects may be found:

commonly — повсюди, звичайно;

occasionally— зрідка, випадково;

frequently— часто;

rarely— зрідка;

Accordingly, the object can be described as

common— звичайний, розповсюджений, поширений;

widespread— широко розповсюджений;

rare — рідкісний;

occasional — випадковий;

frequent — такий, що часто зустрічається;

characteristic— характерний;

typical— типовий;

representative — показовий, найбільш типовий;

predominant — переважний, домінуючий;

abundant - численний:

An environment may be, therefore,

rich— багатим — or poor— бідним — in certain objects.

4. An object may be found:
in large or small quantities (numbers, amounts) — у великих чи малих кількостях;
in trace amounts — у мікрокількостях (сліди);
in large or small proportions — у великих чи невеликих співвідношеннях.

5. As to the distribution pattern, objects may occur:
uniformly — рівномірно;
nonuniformly — нерівномірно;
regularly — рівномірно, постійно, у певному порядку;
irregularly — хаотично;
randomly — випадково, безладно.

6. An object can (is able to or capable of) — може, ладен чи здатен —
show — проявляти, показувати;
exhibit — демонструвати, виявляти;
possess — володіти — certain properties.

7. A property may be:
characteristic (of) — характерна (для);
typical (of) — типова (для);
representative (for) — притаманна, типова (для);
specific (to) — специфічна (для);
unique — унікальна, виняткова;
intrinsic — властива, внутрішньо притаманна;
distinctive — відмінна, розпізнавальна;
common (to) — загальна (для);
general — загальна;
useful — корисна;
useless — непотрібна, зайва;
remarkable — видатна, визначна.

8. Under (in) certain conditions an object may
become (different) — ставати (іншим) — or
remain (unchanged) —
залишатися (незмінним);
in other words, some properties depend on — залежать від — certain
factors, or are determined by them — визначаються ними.

9. The conditions under which an object shows its properties can be
described as:
laboratory — лабораторні;
experimental — експериментальні;
field — польові;

natural — природні;
environmental — умови навколишнього середовища;
specific — особливі, специфічні;
standard — загальні, стандартні;
certain — певні, деякі;
constant — постійні;
definite — певні, відомі;
varying — змінні.

10. The conditions can be described through some intrinsic characteristics of the object itself or through the characteristics of the environment. In either case, use the preposition at— за, при;

e.g. at (constant) temperature — при (постійній) температурі;
at (low) density — при (низькій) густині;
at (high) pH — при високих значеннях pH, — etc.

11. If the condition in which the object exhibits its property is described as a kind of medium, use the preposition in— в, у:

e.g. in a solution — у розчині;
in the medium — у середовищі;
in acids — у кислотах;
in the presence of — у присутності, etc.

12. A condition is often created by an experimentalist.

Use the preposition on— за (умов), при, у — in the following situations:

on the addition (to) — при додаванні (до);
on heating— при нагріванні;
on cooling — при охолодженні;
on dehydration — при дегідратації;
on freezing — при заморожуванні, etc.

A similar idea is often expressed using when —

e.g.:

when exposed to light— на світлі;
when exposed to air— на повітрі;
when treated mechanically— при механічній обробці.

13. Objects of the same class are similar in some properties but are different in others.

The similarity or difference may be described as:

considerable — великий, значний;
slight — незначний;
some — певний, деякий;
minor — другорядний;
fundamental — основний, фундаментальний;
main, principal — головний, основний.

14. You often have to explain why the object shows this or that property. The explanation involves description of the cause — effect relationship, which can be expressed using:

because — тому що;

so — тому, таким чином;

due (to) — через, завдяки;

be due (to) — бути викликаним, зумовленим;

be responsible (for) — бути причиною, зумовлювати.

Sometimes it is convenient to begin an explanation with the introductory phrase: The point is that... — справа в тому, що; or you see — бачите, etc.

15. Reference to a specific case, especially when one wants to give an illustrative example, can be made using:

for example— наприклад;

like—подібним чином, подібно (до);

with reference (to)— (описувати щось) на прикладі (якогось одного об'єкту); namely— а саме

SECTION 2
TOPIC 9
PRACTICAL UNITS 24, 25, 26
MAKING DECISIONS

1. Read and translate the words:

graduate opportunities postgraduate appealing inviting and withstand difficulty involved in intend advised regret step late matter predicament follow depend on either	
---	--

naturally
be tempted
flattered by
prospect
insist on
parents
prefer
career
realize
aspects
absolutely
sure
dedicated
capable
ready
sacrifice
disadvantages
numerous
deceive
embarked
leisure
rest
prevent from
relatives
enjoy you
carry on
doggedly
job
aim
solving
concerned you
search
recognize
urgent
awaiting
solution
regret
career
folks
worthwhile
effort
success
disappointed
decision
think over

never rest satisfy with busy worry tired still	
--	--

2. Read and translate the word combinations:

“So many men, so many minds!”

Whatever happens; no graduate can help being tempted by; they do not matter; peace of mind; on the field of science; to be faced with; find the solution; working and living like that; are worth trying; Once you have started; you must keep going; is worth trying; making up your mind; to sacrifice all pleasures of life; taking a postgraduate course; capable of withstanding all the difficulties; to weigh all pros and cons; to look close into the advantages and disadvantages; it is no use asking for

3. Read and translate the text.

Write a synopsis of the text in five sentences.

Text A

Making decision on a career is not easy. Every university graduate is faced with it. There are many opportunities that are worth trying, and one of them is doing science. The idea of taking a postgraduate course is certainly very appealing and inviting, and no graduate can help being tempted by it.

But not everyone is capable of withstanding all the difficulties involved in doing research. If you intend to become a postgraduate, you are advised to weigh all pros and cons, to look close into the advantages and disadvantages of the scientific career lest you should regret taking the step later.

It is no use asking for other people's advice in this matter. By asking your friends for advice you may find yourself in a predicament, not knowing whose advice to follow. Remember the English saying: So many men, so many minds! Do not depend on your parents advising you either: they would naturally be tempted and flattered, by such a prospect; they would insist on your doing science. Most parents prefer their children choosing the career of a scientist rather than any other. You should realize there are many aspects of the problem.

First of all, you should be absolutely sure that you will make a dedicated researcher, that you will give all your time and efforts to studying. Then you must ask yourself if you are capable of doing scientific work, if you are interested enough in doing research to be ready to sacrifice all pleasures of life for science. It is the disadvantages of the work that you should consider first. They are numerous and it is no good deceiving yourself that they do not matter. They do. And very much so! Having embarked on the field of science, you will know no peace of

mind, no leisure, no rest, day after day; your work will prevent you from visiting friends, from going out, from playing with your children, from seeing relatives.

If you are a true scientist and enjoy working and living like that you will carry on doggedly doing your job, you will aim at solving the problem concerned, until one day you will succeed in finding the solution you have been searching for all this time. When that day comes, you will be the happiest man on Earth till you recognize another urgent problem awaiting its solution.

Whatever happens, you will never regret having chosen the career of a scientist.

You will keep saying to your folks at home and to your friends:

"It was worthwhile making all the effort."

But... There is always a but.

The day of success may never come and you might be disappointed.

Now is the time for making a decision, for making up your mind, for thinking it over.

Once you have started, you must keep going, never resting, never satisfied with yourself, always busy, worried and very often tired.

And still I am saying this: "It is worth trying".

4. Match the words with their definitions

Postgraduate	a) making up your mind
Making a decision	b) a student with a first degree from a university who is studying or doing research at a more advanced level
Opportunity	c) a situation in which it is possible for you to do something that you want to do.
Advantage	d) not as good as you had hoped, or do not do what you hoped they would do.
Disadvantage	e) valuable or important, you give it up, usually to obtain something else for yourself or for other people
Success	f) a factor which makes someone or something less useful, acceptable, or successful than other people or things
Solution	g) the achievement of something that you have been trying to do.
Capable of	h) a way of dealing with a problem so that the difficulty is removed.
Sacrifice	i) able or ready to
Disappointing	

5. Match the words with their synonyms

Regret	Branch
Embark	Dilemma
Depend on	Avoid

Busy	Endeavor
Be tempted	Seek out
Search for	Persuade
Aim	Full of activity
Prevent from	Rely on
Predicament	Start
Field	Be sorry

6. Lexical revision. Commonly misused words.

Translate the sentences. Choose the correct usage with the help of a dictionary if necessary.

- The chairman requested committee members to **sit / set** down.
The artist **sit / set** his clay on the workbench and began to create a sculpture.
- Theatre seats are most often **stationary / stationery**. At work, I use the company's business **stationary / stationery**.
- Ms Sanchez was **surely / sure** the meeting would start on time.
Surely / sure, I can rely on your being there on time.
- Miss Smith learns /teachesmath every Thursday. Ron Jonas, a student, **learns /teaches** math from Ms Smith.
- New York is smaller **than / then** Wyoming, but Wyoming has a much smaller population **than / then** New York. First the eastern board was colonized, **than / then** settlers moved westward.
- When leaving **their / there / they're** wartorn country, most of the refugees left their possessions behind. **Their / there / there are** no easy answers to the problems of worldwide hunger. As for the members of Congress, **their / there / they're** not always responsible for the wisest decisions.
- The special crew worked **threw / through** the night to repair the damaged wires. When the Little League pitcher **threw / through** the ball, her teammates cheered.
- United States presidents often travel **too / to / two** foreign countries. Many foreign heads of state visit the United States **too / to / two**.
Too / to / two visitors were Mugabe and Yeltsin.

Part 2. Study the lexics for writing a scientific research paper.

Chapter 9. CURRENT RESEARCH WORK: A PROGRESS REPORT

1. When describing the nature of the work, you may need some of these words and expressions:

to do research work on — виконувати наукову роботу за темою;

to make (do, carry out, conduct, perform) a study on (of) —
проводити дослідження;

to decide to study out (learn, find evidence for) — вирішити, з'ясувати,
встановити, знайти свідчення;

to make an attempt — зробити спробу;

to attempt (undertake) a study — розпочати дослідження;

to draw up a study plan — скласти план дослідження;

to give much attention to — приділити багато уваги.

2. A particular research (effort, study) can be described as:

intensive — напружений, інтенсивний;

extensive — широкий, поширений;

comprehensive — комплексний, всебічний;

interesting to (for) — цікавий для когось (для певних цілей).

3. Among your accomplishments— здобутків, досягнень — you may mention:

the development or working out of a method (idea, principle, etc.) — розвиток чи
розробка (ідеї, принципу тощо);

improvement or refinement of a method (instrument, approach) — удосконалення
методу (інструменту, підходу);

refinement of a result (conception, classification etc.) — уточнення результату
(поняття, класифікації тощо);

introduction of a new method (idea, instrument, principle, etc.) — запровадження
нового методу (ідеї, приладу, принципу тощо);

confirmation or refusing of a result (idea, assumption, etc.) — підтвердження чи
спростування результату (ідеї, припущення тощо);

You may have obtained interesting results (data, evidence for) — отримати цікаві
результати (дані, свідчення);

found (established, shown, revealed, demonstrated) something — виявити
(встановити, показати щось);

done a thesis (dissertation) — написати дисертацію;

cooperate with another laboratory or institute — співпрацювати з іншою
лабораторією чи інститутом.

4. As a result of these or other efforts, you may have made some progress (in) —
досягти успіхів, просунутись уперед (у);

failed to — зазнати поразки; не впоратися із ;

come to an understanding (of) — дійти розуміння;

come to (arrive at) a conclusion — дійти висновку;

achieved the end — досягти поставленої мети;
fulfilled the research program — виконати програму дослідження;
completed a certain phrase in research — завершити певний етап роботи.

5. When you assess somebody's report, you may say that it was
detailed — детальний, з подробицями;
superficial — поверхневий, неглибокий;
comprehensive — всебічний, вичерпний;
careful or thorough — ретельний;
good or (un) interesting — (не) цікавий;
informative — інформативний:
too lengthy or too brief — надто розтягнутий чи надміру короткий.
If you want to point out some omissions the speaker has made,
express your suggestion saying that he
should (+ Perfect Infinitive) — йому слід було;
could (+ Perfect Infinitive) — він міг би.
Suggestions for further improvements of the report can be made using:
it would be a good idea (e.g. to discuss) — було б непогано
(наприклад, обговорити); you'd better — вам би краще;
you have to (+ Infinitive) — вам потрібно, доведеться;
you don't have to — вам не обов'язково (щось робити)

2. Write a report on your own research activities.

- 1) Define the subject of your current research work.
- 2) Say how long this work has been under way.
- 3) Indicate the current interest in the problem.
- 4) State the problem and define the aim of your report.
- 5) Indicate the reporting period.
- 6) Describe the requirement for the study with respect to the materials, equipment, methods or specific condition that were to be met at different stages of the research.
- 7) Report the main results of your current work and make an attempt at their preliminary interpretation.
- 8) Outline the part of the research that still remains to be done and the time necessary to bring into conclusion.
- 9) Write a few words about a possible significance of your current research in case it is completed successfully.

SECTION 2
TOPIC 10
PRACTICAL UNITS 27, 28, 29
SCIENTIFIC TRANSLATION

1. Read and translate the words:

easy jargon sprout nuances challenges introduce quite to choose correct way to adapt to solve require essence especially articles describe precisely interpret identical several challenges face common issues solve fluent well-educated techniques chosen expertise enormous introduce discussion language strict structure include	
--	--

thus transfer original, overlook mistakes to be advised to proofread drafts always rely on co-workers to check popular features to check consistency requirements limits offensive possess communication skills	
--	--

2. Read and translate the word combinations:

scientific texts, in detailed analysis, well-founded explanation, the goal of the translator, scientific data, convey the material to, in a manner similar to original style, this condition branches into, on a daily basis, domain-specific terms, to the target language, both experience and expertise, in the source language field of study, challenge within itself, follow the form of, deliver information in detail, pay close attention, going through a long translation process, at every step of the process, computer-assisted translation tools, put on the expert's shoulders, making sure, to work closely with

3. Read and translate the text.

Write a synopsis of the text in five sentences.

Text A

Scientific Translation Challenges

The essence of scientific texts is in detailed analysis and well-founded explanation of a scientific problem (especially in articles describing research results, hypotheses, theories, etc.). The goal of the translator is to precisely interpret the scientific data and convey the material to the reader in a manner similar, if not identical, to the original style. This condition branches into several

challenges that experts face on a daily basis. Take a look at the most common issues that the translators must solve.

It's never easy to translate domain-specific terms and jargon, but in scientific translation, this problem sprouts even more nuances and challenges. Scientists often introduce new terms in their research papers, and for the translator, it is quite a challenging task to choose a correct way to adapt the new word to the target language. To solve this problem, a specialist requires both experience and expertise.

Scientific translation is a very demanding task. A scientific translator has to be:

- Fluent in the source language;
- Fluent in the target language;
- Well-educated in translation techniques;
- An expert in the chosen field of study.

The expertise of professional translators in the field is enormous. Becoming an expert in scientific translation is a challenge within itself.

Adapting style and format

Scientific texts often follow the form of a monologue. The author introduces a problem, a discussion, and a possible solution to the problem. The language is strict and monotonous, the structure includes long compound sentences that deliver information in detail. Thus, the translator should pay close attention when transferring the grammatical structures of the original to the target language. Going through a long translation process, you might overlook some mistakes in your own work. It is advised to **proofread your drafts at every step of the process**. You don't have to always rely on your co-workers to check the text. Machine translation is a popular practice. Computer-assisted translation tools have features to check grammar, consistency and fix errors made in a translation.

Scientific translation is a task both tedious and challenging for a translator. The many conditions, requirements, and limits that academic texts put on the expert's shoulders make the translation a complex process. The translator must not only be fluent in the language pair but also have **deep scientific knowledge**.

The work of the translator doesn't end just in converting material to a different language. The professionals have to adapt the tone of the translated material and do some localization, making sure the context of the material is not offensive towards the target culture. The expert should possess high communication skills to work closely with the client or the author of the original text.

4. Match the words with their definitions

1) localization	- the activity in which people talk about something and tell each other their ideas or opinions
2) monologue	- a detailed study of a subject, especially in order to discover (new) information or reach a (new) understanding
3) problem	- a piece of methodical writing on a particular subject
4) monotonous	- the way that someone speaks or writes, for example, the kind of words and phrases that they use
5) communication	- something that helps you to do a particular activity
6) enormous	- a person who you work with, especially someone with a similar job or level of responsibility
7) skill	- an ability to do an activity or job well, especially because you have practised it
8) co-worker	- extremely large
9) tool	- the exchange of information and the expression of feeling that can result in understanding
10) language	- not changing
11) discussion	- the process of organizing activities so that so that they happen in a particular areas
12) research	- a long speech by one person
13) scientific article	- a question that needs an answer

5. Match the phrases with their synonyms

1) demanding task	a) complex issue
2) converting material	b) general organization
3) possible solution	c) stick mistakes
4) compound question	d) adjust the manner
5) common structure	e) accepted performance
6) fix errors	f) focus on
7) to adapt the tone	g) unique content
8) popular practice	h) promising way out
9) pay attention	i) set up fresh expression
10) original text	j) transforming the stuff
11) introduce new term	k) challenging mission

6. Lexical revision. Commonly misused words.

Translate the sentences. Choose the correct usage with the help of a dictionary if necessary.

1. James is *continuously* /*continually* late.

The river runs *continuously* /*continually* through several towns

2. Our neighbor has just been elected to the town *council /counsel*.
Two troubled men sought his friend's *council /counsel*.
3. Because the defendant had a good alibi, his story seemed *credible / credulous /credible*. As a result of many hours of hard work, Joe presented a *credible /credulous /credible* report. Sandy is so *credible / credulous /credible* that one could sell her the Brooklyn Bridge.
4. His unusual recipe called for *current /currant* jelly. Because the *current /currant* was swift, the canoe was difficult to maneuver.
5. The *desert /dessert* is very hot and dry. More and more young soldiers have been *deserting /desserting* the army. Apple pie is America's favorite *desert /dessert*.
6. Eventually, every living thing *dies /dyes*. I'll never *die /dye* my hair.
7. The builders *discovered /invented* oil in our land. Whitney *discovered /invented* the cotton gin.
8. Marlene *draws / drawers* very well. She keeps her pads and pencils in the top *draw / drawer* of her desk.
9. The Harlows *emigrated /immigrated* from England. After *emigrating /immigrating* to the United States, the Harlows settled in Kansas.
10. John Simpson is an *infamous /famous* car thief. Arthur Jones is *an/a infamous /famous* pianist.

Part 2. Study the lexics for writing a scientific research paper.

Chapter 10. CLASSIFICATION AND IDENTIFICATION

1. When we describe the arrangement of many objects in a certain order, we say that they
naturally fall (into)— природним чином розпадаються (на);
are classified (into)— класифікуються (на);
are divided (into) — поділяються (на);
are grouped (into) — згруповані (у) — certain categories,
or that we recognize — розпізнаємо — certain groups or classes.

2. The classification categories or units often have general names, like
classes — класи;
groups — групи;
types — типи;
divisions or subdivisions — розряди, підрозділи;
families — сімейства;

species — види;

varieties — різновиди, сорти

3. In general characteristics, various things are often:
marked— позначаються — by numbers or symbols.

A symbol may denote, or stand for — означати —
or represent — зображати, представляти — a structural element
or characteristic of an object.

Матеріали лекції 1

1. Definitions of economics over time

Economics is a social science that studies the production, distribution, and consumption of goods and services. Economics focuses on the behaviour and interactions of economic agents and how economies work. Microeconomics analyzes what's viewed as basic elements in the economy, including individual agents and markets, their interactions, and the outcomes of interactions. Individual agents may include, for example, households, firms, buyers, and sellers. Macroeconomics analyzes the economy as a system where production, consumption, saving, and investment interact, and factors affecting it: employment of the resources of labour, capital, and land, currency inflation, economic growth, and public policies that have impact on these elements.

Other broad distinctions within economics include those between positive economics, describing "what is", and normative economics, advocating "what ought to be"; between economic theory and applied economics; between rational and behavioural economics; and between mainstream economics and heterodox economics.

Economic analysis can be applied throughout society, including business, finance, cybersecurity, health care, engineering and government. It is also applied to such diverse subjects as crime, education, the family, feminism, law, philosophy, politics, religion, social institutions, war, science, and the environment.

The earlier term for the discipline was 'political economy', but since the late 19th century, it has commonly been called 'economics'. The term is ultimately derived from Ancient Greek οἰκονομία (oikonomia) which is a term for the "way (nomos) to run a household (oikos)", or in other words the know-how of an οἰκονομικός (oikonomikos), or "household or homestead manager". Derived terms such as "economy" can therefore often mean "frugal" or "thrifty". By extension then, "political economy" was the way to manage a polis or state.

There are a variety of modern definitions of economics; some reflect evolving views of the subject or different views among economists. Scottish philosopher Adam Smith (1776) defined what was then called political economy as "an inquiry into the nature and causes of the wealth of nations", in particular as:

a branch of the science of a statesman or legislator [with the twofold objectives of providing a plentiful revenue or subsistence for the people ... [and] to supply the state or commonwealth with a revenue for the publick services.

Jean-Baptiste Say (1803), distinguishing the subject matter from its public-policy uses, defined it as the science of production, distribution, and consumption of wealth. On the satirical side, Thomas Carlyle (1849) coined "the dismal science" as an epithet for classical economics, in this context, commonly linked to the pessimistic analysis of Malthus (1798). John Stuart Mill (1844) delimited the subject matter further:

The science which traces the laws of such of the phenomena of society as arise from the combined operations of mankind for the production of wealth, in so far as those phenomena are not modified by the pursuit of any other object.

Alfred Marshall provided a still widely cited definition in his textbook *Principles of Economics* (1890) that extended analysis beyond wealth and from the societal to the microeconomic level:

Economics is a study of man in the ordinary business of life. It enquires how he gets his income and how he uses it. Thus, it is on the one side, the study of wealth and on the other and more important side, a part of the study of man.

Lionel Robbins (1932) developed implications of what has been termed "[p]erhaps the most commonly accepted current definition of the subject":

Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses.

Robbins described the definition as not classificatory in "pick[ing] out certain kinds of behaviour" but rather analytical in "focus[ing] attention on a particular aspect of behaviour, the form imposed by the influence of scarcity." He affirmed that previous economists have usually centred their studies on the analysis of wealth: how wealth is created (production), distributed, and consumed; and how wealth can grow. But he said that economics can be used to study other things, such as war, that are outside its usual focus. This is because war has as the goal winning it (as a sought after end), generates both cost and benefits; and, resources (human life and other costs) are used to attain the goal. If the war is not winnable or if the expected costs outweigh the benefits, the deciding actors (assuming they are rational) may never go to war (a decision) but rather explore other alternatives. Economics cannot be defined as the science that studies wealth, war, crime, education, and any other field economic analysis can be applied to; but, as the science that studies a particular common aspect of each of those subjects (they all use scarce resources to attain a sought after end).

Some subsequent comments criticized the definition as overly broad in failing to limit its subject matter to analysis of markets. From the 1960s, however, such comments abated as the economic theory of maximizing behaviour and rational-choice modelling expanded the domain of the subject to areas previously

treated in other fields. There are other criticisms as well, such as in scarcity not accounting for the macroeconomics of high unemployment.

Gary Becker, a contributor to the expansion of economics into new areas, described the approach he favoured as "combin[ing the] assumptions of maximizing behaviour, stable preferences, and market equilibrium, used relentlessly and unflinchingly."¹ One commentary characterizes the remark as making economics an approach rather than a subject matter but with great specificity as to the "choice process and the type of social interaction that [such] analysis involves." The same source reviews a range of definitions included in principles of economics textbooks and concludes that the lack of agreement need not affect the subject-matter that the texts treat. Among economists more generally, it argues that a particular definition presented may reflect the direction toward which the author believes economics is evolving, or should evolve.

Many economists including nobel prize winners James M. Buchanan and Ronald Coase reject the method-based definition of Robbins and continue to prefer definitions like those of Say, in terms of its subject matter. Ha-Joon Chang has for example argued that the definition of Robbins would make economics very peculiar because all other sciences define themselves in terms of the area of inquiry or object of inquiry rather than the methodology. In the biology department, they do not say that all biology should be studied with DNA analysis. People study living organisms in many different ways, so some people will do DNA analysis, others might do anatomy, and still others might build game theoretic models of animal behavior. But they are all called biology because they all study living organisms. According to Ha Joon Chang, this view that the economy can and should be studied in only one way (for example by studying only rational choices), and going even one step further and basically redefining economics as a theory of everything, is very peculiar.

Neoclassical economics

At its inception as a social science, economics was defined and discussed at length as the study of production, distribution, and consumption of wealth by Jean-Baptiste Say in his *Treatise on Political Economy or, The Production, Distribution, and Consumption of Wealth* (1803). These three items were considered only in relation to the increase or diminution of wealth, and not in reference to their processes of execution. Say's definition has survived in part up to the present, modified by substituting the word "wealth" for "goods and services" meaning that wealth may include non-material objects as well. One hundred and thirty years later, Lionel Robbins noticed that this definition no longer sufficed, because many economists were making theoretical and philosophical inroads in other areas of human activity. In his *Essay on the Nature and Significance of Economic Science*, he proposed a definition of economics as a study of human behaviour, subject to and constrained by scarcity which forces people to choose, allocate scarce

resources to competing ends, and economize (seeking the greatest welfare while avoiding the wasting of scarce resources). According to Robbins: "Economics is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses". Robbins' definition eventually became widely accepted by mainstream economists, and found its way into current textbooks.¹ Although far from unanimous, most mainstream economists would accept some version of Robbins' definition, even though many have raised serious objections to the scope and method of economics, emanating from that definition.

A body of theory later termed "neoclassical economics" formed from about 1870 to 1910. The term "economics" was popularized by such neoclassical economists as Alfred Marshall and Mary Paley Marshall as a concise synonym for "economic science" and a substitute for the earlier "political economy". This corresponded to the influence on the subject of mathematical methods used in the natural sciences.

Neoclassical economics systematized supply and demand as joint determinants of price and quantity in market equilibrium, affecting both the allocation of output and the distribution of income. It dispensed with the labour theory of value inherited from classical economics in favour of a marginal utility theory of value on the demand side and a more general theory of costs on the supply side. In the 20th century, neoclassical theorists moved away from an earlier notion suggesting that total utility for a society could be measured in favour of ordinal utility, which hypothesizes merely behaviour-based relations across persons

In microeconomics, neoclassical economics represents incentives and costs as playing a pervasive role in shaping decision making. An immediate example of this is the consumer theory of individual demand, which isolates how prices (as costs) and income affect quantity demanded. In macroeconomics it is reflected in an early and lasting neoclassical synthesis with Keynesian macroeconomics.

Neoclassical economics is occasionally referred as orthodox economics whether by its critics or sympathizers. Modern mainstream economics builds on neoclassical economics but with many refinements that either supplement or generalize earlier analysis, such as econometrics, game theory, analysis of market failure and imperfect competition, and the neoclassical model of economic growth for analysing long-run variables affecting national income.

Neoclassical economics studies the behaviour of individuals, households, and organizations (called economic actors, players, or agents), when they manage or use scarce resources, which have alternative uses, to achieve desired ends. Agents are assumed to act rationally, have multiple desirable ends in sight, limited resources to obtain these ends, a set of stable preferences, a definite overall guiding objective, and the capability of making a choice. There exists an economic

problem, subject to study by economic science, when a decision (choice) is made by one or more players to attain the best possible outcome.

Keynesian economics

Keynesian economics derives from John Maynard Keynes, in particular his book *The General Theory of Employment, Interest and Money* (1936), which ushered in contemporary macroeconomics as a distinct field. The book focused on determinants of national income in the short run when prices are relatively inflexible. Keynes attempted to explain in broad theoretical detail why high labour-market unemployment might not be self-correcting due to low "effective demand" and why even price flexibility and monetary policy might be unavailing. The term "revolutionary" has been applied to the book in its impact on economic analysis.

During the following decades, many economists followed Keynes' ideas and expanded on his works. John Hicks and Alvin Hansen developed the IS–LM model which was a simple formalisation of some of Keynes' insights on the economy's short-run equilibrium. Franco Modigliani and James Tobin developed important theories of private consumption and investment, respectively, two major components of aggregate demand. Lawrence Klein built the first large-scale macroeconometric model, applying the Keynesian thinking systematically to the US economy.

Post-WWII economics

Immediately after World War II, Keynesian was the dominant economic view of the United States establishment and its allies, Marxian economics was the dominant economic view of the Soviet Union nomenklatura and its allies.

Monetarism

Main article: Monetarism

Monetarism appeared in the 1950s and 1960s, its intellectual leader being Milton Friedman. Monetarists contended that monetary policy and other monetary shocks, as represented by the growth in the money stock, was an important cause of economic fluctuations, and consequently that monetary policy was more important than fiscal policy for purposes of stabilization. Friedman was also skeptical about the ability of central banks to conduct a sensible active monetary policy in practice, advocating instead using simple rules such as a steady rate of money growth.

Monetarism rose to prominence in the 1970s and 1980s, when several major central banks followed a monetarist-inspired policy, but was later abandoned again because the results turned out to be unsatisfactory.^{[82][83]}

New classical economics

A more fundamental challenge to the prevailing Keynesian paradigm came in the 1970s from new classical economists like Robert Lucas, Thomas Sargent and Edward Prescott. They introduced the notion of rational expectations in economics, which had profound implications for many economic discussions, among which were the so-called Lucas critique and the presentation of real business cycle models.

New Keynesians

During the 1980s a group of researchers appeared being called New Keynesian economists, including among others George Akerlof, Janet Yellen, Gregory Mankiw and Olivier Blanchard. They adopted the principle of rational expectations and other monetarist or new classical ideas such as building upon models employing micro foundations and optimizing behaviour, but simultaneously emphasized the importance of various market failures for the functioning of the economy, as had Keynes. Not least, they proposed various reasons that potentially explained the empirically observed features of price and wage rigidity, usually made to be endogenous features of the models, rather than simply assumed as in older Keynesian-style ones.

New neoclassical synthesis

After decades of often heated discussions between Keynesians, monetarists, new classical and new Keynesian economists, a synthesis emerged by the 2000s, often given the name the new neoclassical synthesis. It integrated the rational expectations and optimizing framework of the new classical theory with a new Keynesian role for nominal rigidities and other market imperfections like imperfect information in goods, labour and credit markets. The monetarist importance of monetary policy in stabilizing the economy and in particular controlling inflation was recognized as well as the traditional Keynesian insistence that fiscal policy could also play an influential role in affecting aggregate demand. Methodologically, the synthesis led to a new class of applied models, known as dynamic stochastic general equilibrium or DSGE models, descending from real business cycles models, but extended with several new Keynesian and other features. These models proved very useful and influential in the design of modern monetary policy and are now standard workhorses in most central banks.

After the financial crisis

After the 2007–2008 financial crisis, macroeconomic research has put greater emphasis on understanding and integrating the financial system into models of the general economy and shedding light on the ways in which problems in the financial sector can turn into major macroeconomic recessions. In this and other research branches, inspiration from behavioral economics has started playing a

more important role in mainstream economic theory. Also, heterogeneity among the economic agents, e.g. differences in income, plays an increasing role in recent economic research.

Economics as Social Science Definition

All scientific fields have a few things in common.

The first is objectivity, that is, the quest to find the truth. For example, a geologist may want to find out the truth about how a certain mountain range came into being, while a physicist may want to find the truth about what causes light rays to bend while going through water.

The second is discovery, that is, discovering new things, new ways of doing things, or new ways of thinking about things. For example, a chemist may be interested in creating a new chemical to improve the strength of an adhesive, while a pharmacist may desire to create a new drug to cure cancer. Similarly, an oceanographer may be interested in discovering new aquatic species.

The third is data collection and analysis. For example, a neurologist may want to collect and analyze data on brain wave action, while an astronomer may want to collect and analyze data to track the next comet.

Finally, there is the formulation and testing of theories. For example, a psychologist may formulate and test a theory about the impacts of stress on a person's behavior, while an astrophysicist may formulate and test a theory about the impact of the distance from the earth on the operability of a space probe.

So let's look at economics in light of these commonalities among the sciences. First, economists most certainly are objective, always wanting to know the truth about why certain things are happening among individuals, firms, and the economy at large. Second, economists are constantly in discovery mode, trying to find trends to explain what is happening and why, and always sharing new thoughts and ideas among themselves, and with policymakers, firms, and the media. Third, economists spend much of their time collecting and analyzing data to use in charts, tables, models, and reports. Finally, economists are always coming up with new theories and testing them for validity and usefulness.

Therefore, compared to the other sciences, the field of economics fits right in!

The scientific framework consists of objectivity, discovery, data collection and analysis, and the formulation and testing of theories. Economics is considered a science because it fits this framework.

Like many scientific fields, the field of economics has two main sub-fields: microeconomics and macroeconomics.

Microeconomics is the study of how households and firms make decisions and interact in markets. For example, what happens with the supply of labor if wages rise, or what happens with wages if firms' costs of materials increase?

Macroeconomics is the study of economy-wide actions and impacts. For example, what happens to home prices if the Federal Reserve raises interest rates, or what happens to the unemployment rate if production costs decline?

Although these two sub-fields are different, they are connected. What happens at the micro level eventually manifests at the macro level. Therefore, in order to better understand macroeconomic events and impacts, it is vital to understand microeconomics as well. Sound decisions by households, firms, governments, and investors all hinge on a solid understanding of microeconomics.

Now, what have you noticed about what we've said so far about economics? Everything that economics as a science deals with involves people. At the micro level, economists study the behavior of households, firms, and governments. These are all different groups of people. At the macro level, economists study trends and the impact of policies on the overall economy, which consists of households, firms, and governments. Again, these are all groups of people. So whether at the micro level or the macro level, economists essentially study human behavior in response to the behavior of other humans. This is why economics is considered a social science, because it involves the study of humans, as opposed to rocks, stars, plants, or animals, as in the natural, or applied sciences.

A social science is the study of human behaviors. That's what economics is at its core. Therefore, economics is considered a social science.

Difference Between Economics as a Social Science and Economics as Applied Science

What is the difference between economics as a social science and economics as an applied science? Most people think of economics as a social science. What does that mean? At its core, economics is the study of human behavior, both the causes and effects. Since economics is the study of human behavior, the main problem is that economists cannot truly know what is going on inside a person's head that determines how they will act based on certain information, wants, or needs.

For example, if the price of a jacket jumps, but a certain person buys it anyway, is it because they really like that jacket? Is it because they just lost their jacket and need a new one? Is it because the weather just turned really cold? Is it because their friend just bought the same jacket and is now super popular in her

class? We could go on and on. The point is that economists cannot readily observe the inner workings of peoples' brains to understand exactly why they took the activity?

Therefore, instead of conducting experiments in real-time, economists generally have to rely on past events to determine cause and effect and formulate and test theories. (We say generally because there is a sub-field of economics that conducts randomized control trials to study microeconomic issues.)

An economist cannot just walk into a store and tell the manager to raise the price of a jacket and then sit there and watch how consumers react. Rather, they have to look at past data and come up with general conclusions about why things happened the way they did. In order to do this, they have to collect and analyze a lot of data. They can then formulate theories or create models to try to explain what happened and why. They then test their theories and models by comparing them to historical data, or empirical data, using statistical techniques to see if their theories and models are valid.

Theories and Models

Most of the time, economists, like other scientists, need to come up with a set of assumptions that help to make the situation at hand a little easier to understand. While a physicist may assume no friction when testing a theory about how long it will take for a ball to fall from a rooftop to the ground, an economist may make the assumption that wages are fixed in the short run when testing a theory about the effects of a war and the resulting oil supply shortage on inflation. Once a scientist can understand the simple version of their theory or model, they can then move on to see how well it explains the real world.

It is important to understand that scientists make certain assumptions based on what it is they are trying to understand. If an economist wants to understand the short-run effects of an economic event or policy, he or she will make a different set of assumptions compared to if the long-run effects are what they want to study. They will also use a different set of assumptions if they want to determine how a firm will act in a competitive market as opposed to a monopolistic market. The assumptions made depend on what questions the economist is trying to answer. Once the assumptions are made, the economist can then formulate a theory or model with a more simplistic view.

Using statistical and econometric techniques, theories can be used to create quantitative models that allow economists to make predictions. A model can also be a diagram or some other representation of economic theory that is not quantitative (does not use numbers or math). Statistics and econometrics can also help economists to measure the accuracy of their predictions, which is just as important as the prediction itself. After all, what good is a theory or a model if the resulting prediction is way off the mark?

The usefulness and validity of a theory or model depend on if it can, within some degree of error, explain and predict what the economist is trying to predict. Thus, economists are constantly revising and retesting their theories and models to make even better predictions down the road. If they still do not hold up, they are tossed aside, and a new theory or model is conjured up.

Now that we have a better understanding of theories and models, let's have a look at a couple of models widely used in economics, their assumptions, and what they tell us.

Circular Flow Model

First up is the Circular Flow model. As can be seen in Figure 3 below, this model shows the flow of goods, services, and factors of production going one way (inside blue arrows) and the flow of money going the other way (outside green arrows). To make the analysis more simple, this model assumes that there is no government and no international trade.

Households offer the factors of production (labor and capital) to firms, and firms purchase those factors in the factor markets (labor market, capital market). Firms then use those factors of production to produce goods and services. Households then purchase those goods and services in the final goods markets.

When firms purchase factors of production from households, households receive income. They use that income to purchase goods and services from the final goods markets. That money ends up being revenue for firms, some of which is used to purchase factors of production, and some of which is kept as profits.

This is a very basic model of how the economy is organized and how it functions, made simple by the assumption that there is no government and no international trade, the addition of which would make the model much more complex.

Prices and Markets

Prices and markets are integral to the understanding of economics as a social science. Prices are a signal as to what people want or need. The higher the demand for a good or service, the higher the price will be. The lower the demand for a good or service, the lower the price will be.

In a planned economy, the amount produced and the selling price are dictated by the government, resulting in a mismatch between supply and demand as well as much less consumer choice. In a market economy, the interaction between consumers and producers determines what is produced and consumed, and at what price, resulting in a much better match between supply and demand and much greater consumer choice.

At the micro level, demand represents the wants and needs of individuals and firms, and the price represents how much they are willing to pay. At the macro level, demand represents the wants and needs of the entire economy, and the price level represents the cost of goods and services throughout the economy. At either level, prices signal what goods and services are demanded in the economy, which then helps producers figure out what goods and services to bring to market and at what price. This interaction between consumers and producers is central to understanding economics as a social science.

Positive vs Normative Analysis

There are two types of analysis in economics; positive and normative.

Positive analysis is about what is really happening in the world, and the causes and effects of economic events and actions.

For example, why are home prices falling? Is it because mortgage rates are rising? Is it because employment is falling? Is it because there is too much housing supply on the market? This kind of analysis lends itself best to formulating theories and models to explain what is going on and what may happen in the future.

Normative analysis is about what should be, or what is best for society.

For example, should caps be put on carbon emissions? Should taxes be raised? Should the minimum wage be raised? Should more housing be built? This kind of analysis lends itself best to policy design, cost-benefit analysis, and finding the right balance between equity and efficiency.

So What's The Difference?

Now that we know why economics is considered a science, and a social science at that, what is the difference between economics as a social science and economics as applied science? In truth, there really is not much of a difference. If an economist wants to study certain phenomena in the economy just for the sake of learning and advancing their understanding, this would not be considered applied science. That is because applied science is using the knowledge and understanding gained from research for a practical use to create a new invention, improve a system, or solve a problem. Now, if an economist were to use their research to help a company create a new product, improve their systems or operations, solve a problem at a firm or for the economy as a whole, or to suggest a new policy to improve the economy, that would be considered applied science.

In essence, social science and applied science only differ in that applied science actually puts what is learned to practical use.

How do we differentiate economics as a social science in terms of nature and scope? Economics is considered a social science rather than a natural science because while natural sciences deal with things of the earth and the cosmos, the nature of economics is studying human behavior and the interaction between consumers and producers in the market. Since the market, and a great number of products and services that are produced and consumed, are not considered part of nature, the scope of economics consists of the human realm, not the natural realm that is studied by physicists, chemists, biologists, geologists, astronomers, and the like. For the most part, economists are not concerned about what is happening deep beneath the sea, deep in the earth's crust, or in deep outer space. They are concerned with what is happening with the human beings living on the earth and why these things are happening. This is how we differentiate economics as social science in terms of nature and scope.

Economics as Science of Scarcity

Economics is thought of as a science of scarcity. What does that mean? For firms, it means that resources, such as land, labor, capital, technology, and natural resources are limited. There is only so much output an economy can produce because all of these resources are limited in some way.

Scarcity is the concept that we face limited resources when we make economic decisions.

For firms, this means that things like land, labor, capital, technology, and natural resources are limited.

For individuals, this means that incomes, storage, usage, and time are limited.

Land is limited by the size of the earth, the usability for farming or raising crops or building houses or factories, and by federal or local regulations on its use. Labor is limited by population size, the education and skills of workers, and their willingness to work. Capital is limited by the financial resources of firms and the natural resources required to build capital. Technology is limited by human ingenuity, the speed of innovation, and the costs required to bring new technologies to market. Natural resources are limited by how much of those resources are currently available and how much can be extracted in the future based on how fast those resources are replenished, if at all.

For individuals and households, it means that incomes, storage, usage, and time are limited. Incomes are limited by education, skills, the number of hours available to work, and the number of hours worked, as well as the number of jobs available. Storage is limited by space, whether the size of one's house, garage, or rented storage space, which means there are only so many things people can buy. Usage is limited by how many other things a person owns (if someone owns a

bike, a motorcycle, a boat, and a jet ski, they can't all be used at the same time). Time is limited by the number of hours in a day, and the number of days in a person's lifetime. As you can see, with resources scarce for everyone in the economy, decisions have to be made based on trade-offs. Firms need to decide which products to produce (they can't produce everything), how much to produce (based on consumer demand as well as production capacity), how much to invest (their financial resources are limited), and how many people to hire (their financial resources and the space where employees work are limited). Consumers need to decide which goods to buy (they can't buy everything they want) and how much to buy (their incomes are limited). They also need to decide how much to consume now and how much to consume in the future. Finally, workers need to decide between going to school or getting a job, where to work (large or small firm, start-up or established firm, which industry, etc.), and when, where, and how much they want to work.

All of these choices for firms, consumers, and workers are made difficult because of scarcity. Economics is the study of human behavior and the interaction between consumers and producers in the market. Because human behavior and market interactions are based on decisions, which are influenced by scarcity, economics is thought of as a science of scarcity.

Economics as a Social Science

Let's put everything together in an example of economics as a social science. Suppose a man would like to take his family to a baseball game. In order to do so, he needs money. To generate an income, he needs a job. In order to get a job, he needs an education and skills. In addition, there needs to be demand for his education and skills in the marketplace. The demand for his education and skills depends on the demand for the products or services the company he works for provides. The demand for those products or services depends on income growth and cultural preferences. We could keep going further and further back in the cycle, but eventually, we would get back to the same place. It is a full, and ongoing, cycle.

Taking it forward, cultural preferences come about as humans interact with each other and share new ideas. Income growth comes about as more interaction between consumers and producers takes place amid a growing economy, which leads to higher demand. That higher demand is met by hiring new people with certain education and skills. When someone is hired they receive an income for their services. With that income, some people may want to take their family out to a baseball game.

As you can see, all of the links in this cycle are based on human behavior and the interaction between consumers and producers in the market. In this example, we have used the circular flow model to show how the flow of goods and

services, combined with the flow of money, allows the economy to function. In addition, there are opportunity costs involved, as deciding to do one thing (going to a baseball game) comes at the cost of not doing another thing (going fishing). Finally, all of these decisions in the chain are based on scarcity (scarcity of time, income, labor, resources, technology, etc.) for firms, consumers, and workers.

This kind of analysis of human behavior and the interaction between consumers and producers in the market is what economics is all about. This is why economics is considered a social science.

WHAT ARE THE CEFR LEVELS OF ENGLISH?

A1 ENGLISH LEVEL – BEGINNER.

The A1 level of English is the beginner level of language proficiency. Learners at this level can use simple phrases and expressions to participate in everyday situations. They can introduce themselves, ask and answer basic questions and have simple conversations.

A2 ENGLISH LEVEL- PRE-INTERMEDIATE.

The A2 level of English relates to learners who can handle routine conversations using basic vocabulary. They understand sentences about common topics like personal life, shopping and work, and can discuss their past and immediate needs.

B1 ENGLISH LEVEL – INTERMEDIATE.

At B1, learners become more independent users of English who can understand clear texts about familiar topics. Learners at this level can handle most situations when travelling to areas where English is used. They can produce simple and coherent texts about topics they know about or are personally interested in. They can describe experiences, events, wishes and aspirations, as well as explain plans and briefly justify opinions.

B2 ENGLISH LEVEL - UPPER-INTERMEDIATE.

B2 learners can comprehend complex texts on concrete and abstract topics, including detailed discussions in their area of speciality. Learners at this level can interact fluently and spontaneously with proficient speakers without difficulty for either party. They can produce clear and detailed texts on a wide range of subjects and express their opinion on various topics, giving reasons and highlighting advantages and disadvantages.

C1 ENGLISH LEVEL – ADVANCED.

Learners who have a C1 level of English can comprehend a wide range of demanding and lengthy texts, including implicit meanings. Learners at this level can express themselves fluently and spontaneously with little hesitation. They can utilise the language with versatility and precision across various social, academic and professional settings. They can generate coherent, well-organised and elaborate texts on diverse topics, displaying accurate use of organisational structures, connectors and other elements to ensure cohesion.

C2 ENGLISH LEVEL – PROFICIENCY.

The C2 level of English is the highest level of proficiency recognised by the CEFR. At this level, learners can effortlessly comprehend almost anything they read or hear and are capable of summarising information and arguments from multiple sources, both spoken and written, and presenting them coherently and precisely. They can express themselves spontaneously, fluently and precisely, even in complex situations where finer shades of meaning must be discerned.

GLOSSARY
English-Ukrainian

A	
ability	здатність
abroad	за кордоном
absolutely	абсолютно
Academic Council	Вчена рада
acceptable	прийнятний
acceptance	прийняття
accounts	рахунки
accurate	точний
achievement	досягнення
act	діяти
activity	діяльність
adopt	прийняти
advanced	передовий
advice	поради
advise	радити
advisors	радники
aim	мета
allow	дозволяти
also	також
always	завжди
amount of	кількість
annoy	дратувати
annoying	дратуєчий
appealing	привабливий
appear	з'являтися
applicable	стосовно
application	додаток / подання документів
apply	подати документи на вступ/на грант
approach	підхід
appropriate	відповідний
argue	сперечатися
arise	виникати
article	стаття
as a rule	як правило
aspect	аспект
aspiration	прагнення
assist	допомогти
attending	відвідування
attitude	ставлення

authority	авторитет/керівник/управління
available	доступний
avoid	уникати
awaiting	в очікуванні
award	нагорода / присудження
B	
basis	основа
be accepted by	бути прийнятим
be buttoned	бути зачиненим
be conducted	проводитися
be considered	розглядатися
be contributed	бути внесеним
be devoted to	бути присвяченим
be held	проводитися
be organized	організуватися
be presided by	очолювати
be systematized	бути систематизованим
be tempted to	бути змушеним
become	стати
begin with	почати з
behavior	поведінка
belief	переконання
beliefs	вірування
between	між
bowing	кланяючись
branches of science	галузі науки
brief	короткий
brightness	яскравість
broad	широкий
bulk	масовий
busy	зайнятий
C	
capable	здатний
career	кар'єра
carry on	продовжуй
carry out	виконувати
cause	причина
centre	центр
certain	певний
chairman	головуючий
challenges	виклики
choose	вибрати
circumstances	обставини

clear	ясно
coach	тренер
coat	пальто
collaborate	співпрацювати
colleague	колега
collection	колекція
colloquium	колоквіум
common	поширений
communication	спілкування
complete	повний
complex	складний
concerned	стурбований
concrete	бетон / жорсткий/непорушний
conditions	умови
consistency	послідовність
contribute	сприяти
contribution	внесок
cooperation	співробітництво
coordinating	координуючий
core subjects	основні навчальні дисципліни
correct	правильний
co-workers	колеги по роботі
create	створювати
criticize	критикувати
curiosity	допитливість
D	
data	данні
deceive	обманювати
decide	вирішити
decision	рішення
dedicated	відданий
deduction	дедукція
define	визначити
deliver	доставити
depend on	залежати від
derivative	похідна
describe	описати
develop	розвивати
development	розвиток
development	розвиток
differ	відрізняються
different	інший
difficulty	труднощі
dignity	гідність

direction	напрямок
directly	безпосередньо
disadvantages	недоліки
disappointed	розчарований
discovery	відкриття
discretion	розсуд
discuss	обговорити
discussion	обговорення
distance	відстань
distinguish	розрізняти
disturb	турбувати
diverse	різноманітний
divide	розділяти
doggedly	наполегливо
domain	домен / галузь/ інтервал/площина
draft	проект
duration	тривалість
dynamics	динаміка
E	
each	кожен
Earth	земля
easy	легко
education	освіти
effort	зусилля
eggshaped	яйцеподібний/округлий
either	або
embarked	приступити
emotional	емоційний
employees	працівники
enable	включити
end with	закінчити з
endeavour	намагатися
engineer	інженер
enjoy	насолоджуватися
enormous	величезний
ensue	впливають
environment	навколишнє середовище
especially	особливо
essence	сутність
establish	встановити
even if	навіть якщо
events	події
eventually	зрештою
evidence	докази

evolution	еволюція
exceedingly	надзвичайно
exchange	обмін
excursions	екскурсії
expect	очікувати
experimental	експериментальний
expertise	експертиза/оцінка/виявлення
explanation	пояснення
F	
face	обличчя / зустрітись
fail	провал / невдача
features	особливості
field	поле діяльності / галузь
final	остаточний
find	знайти
find out	дізнатися
flat	плаский
flattered by	втішений
fluent	вільно
follow	слідувати
formal	формальний
found	заснувати
freedom	свобода
frequently	часто
function	функція
further	подальший
G	
gatherings	зібрання
generalization	узагальнення
generally	загалом
gifts	подарунки
govern	керувати
H	
health	здоров'я
held	проводити (конференцію)
hope	надія
humanities	гуманітарні науки
humanity	людство
hundred	сто
hypotheses	гіпотези

I	
idea	ідея
identical	однакові
imagination	уява
improve	покращити
in addition to	на додаток до
include	включати
incomplete	неповний
increase	збільшити
innovations	інновації
insist on	наполягати на
installments	розстрочка/частина/засоби/встановлення
instantly	миттєво
instead of	замість
integrate	інтегрувати
intelligently	розумно
intend	мають намір
interpret	інтерпретувати
interrelated	взаємопов'язані
introduce	представити
introduction	вступ
inventor	винахідник
investigation	розслідування/дослідження
invite	запросити
involved in	залучений до
isolated	ізолюваний
issue	проблема
J	
jargon	жаргон
job	праця/робота
K	
knowledge	знання
known	відомий
L	
language	мова
last	останній
late	пізно
lead to	веде до
leisure	дозвілля
letter	лист
limited to	обмежується

limit	обмеження
lines	лінії
listen to	слухати
listeners	слухачі
living nature	жива природа
local	місцевий
longevity	довголіття
M	
mainly	в основному
majority of	більшість
mass	маса
matter	справа
meals	харчування
mean	означати
meet	зустріти
meetings	зустрічі
milestones	віхи
mistakes	помилки
mixed	змішаний
modification	модифікація
N	
narrow	вузький
natural	природний
nature	природа
necessary	необхідно
never	ніколи
newness	новизна
newsworthy	вартийновин
notice	повідомлення
nuances	нюанси
numerous	численні
O	
observation	спостереження
observe	спостерігати
observer	спостерігач
obtain	отримати
obvious	очевидний
occupation	професія
offensive	образливий
offer	пропозиція
open minded	відкритий
opinions	думки

opportunity	можливість
original	оригінальний
overlook	пропускати
owe	заборгувати
P	
papers	документи
parents	батьки
participant	учасник
particular	зокрема
patience	терпіння
patient	пацієнт
people	люди
perform	виконувати
persistent	стійкий
person	людина
phenomenon/phenomena	явище/явища
pleasure	задоволення
plenary session	пленарне засідання
polite	ввічливий
popular	популярний
possess	володіти
postgraduate	аспірант
practical skills	практичні навички
precisely	точно
predicament	скрутне становище
prefer	віддавати перевагу
prepare	підготувати
prevent from	запобігти
principle	принцип
problems	проблеми
procedure	процедура
proceedings	провадження
promoting	просування
propose	пропонувати
prospect	перспектива
prove	довести
provide	забезпечити
publish	публікувати
pure	чистий
pursue	переслідувати
Q	
quick-tempered	запальний
quite	досить

R

ranging from
rapid
rather
reaction
ready
realize
reason
receive
recently
receptions
recognition
recognize
references
reflect
regret
regularly
reject
relationship
relatives
relevant
rely on
remote
repeat
report
represent
reputation
request
require
requirements
research
rest
review
round
royalty

коливаючись між
швидкий
швидше
реакція
готовий
усвідомити
причина
отримати
недавно
прийоми
визнання
розпізнати
посилання
відображати
жаліти
регулярно
відхилити
відносини
родичі
актуальні
покладатися на
дистанційний
повторити
звіт
представляють
репутація
запит
вимагати
вимоги
дослідження
відпочинок
огляд
круглий
роялті/королівський

S

sacrifice
satisfactory
satisfy with
sceptical
science
scientific
scientist

жертвність
задовільно
задоволений
скептичний
наука
науковий
вчений

search	пошук
seem	здається
self-centered	егоцентричний
set up	налаштувати
several	декілька
share	частка
similar	подібні
simple	простий
size	розмір
skills	навички
smile	усмішка
society	суспільства
solution	рішення
solve	вирішити
sometimes	іноді
specialized journals	спеціалізовані журнали
spectrum	спектр
speculation	спекуляції
sprout	паросток
staff members	співробітники
star	зірка
start	початок
step	крок
still	досі
strict	строгий
structure	структура
structured	структурований
study	вивчення
subject	тема
subject-matter	предмет
submit	подати
subsection	підрозділ
substantiating	обґрунтовуючи
success	успіх
successful	успішний
superiors	начальство
sure	впевнений
sway	коливатися
swiftly	швидко
symposia	симпозіуми
T	
team	команда
techniques	техніки
tend	прагнути

testify	свідчити
theory	теорія
think about	думати про
think over	обдумати
thorough	ретельний
thought	думка
thousand	тисячі
thus	таким чином
timidity	боязкість
tired	втомитися
transfer	передача
tremendously	надзвичайно
true	правда
try	спробувати
type	вид
U	
undergraduate	випускник/магістрант
understand	зрозуміти
unfamiliar	незнайомий
unite	об'єднати
universe	Всесвіт
unreliable	ненадійний
until	поки
urgent	терміновий
useless	марний
usual	звичайний
utilize	використовувати
V	
valuable	цінні
various levels	різні рівні
velocity	швидкість
verify	перевірити
visit	відвідати
voice	голос
W	
way	шлях
weekly	щотижневий
well defined	добре визначений
well-attended	добре відвідуваний
well-educated	добре освічений
well-known	добре відомий
whatever	будь-який

whetheror	чиабо
wholeheartedly	від щирого серця
wish	бажання
within	в рамках
withstand	витримати
workshop	майстер-клас
world	світ
worldwide	у всьому світі
worry	турбуватися
worthwhile	варто

GLOSSARY
Ukrainian-English

А	
або	or
абсолютно	absolutely
абревіатура	abbreviation
авторитет/керівник/управління	authority/manager/management,
адміністративна система	administrative system,
адреса відправника	sender's address,
адреса одержувача	recipient's address,
акредитив	letter of credit,
актуальні	actual/topical
аспект	aspect,
аспірант	graduate student,
акцент	accent
акціонер	shareholder
афоризм	aphorism
Б	
бажання	desire
батьки	parents
безпосередньо	directly
бетон / жорсткий/непорушний	concrete/rigid/indestructible
більшість	majority
боязкість	timidity
будь-який	any
бути внесеним	to be introduced
бути зачиненим	to be closed
бути змушеним	to be forced
бути прийнятим	to be accepted
бути присвяченим	to be dedicated t
бути систематизованим	to be systematized
В	
в основному	mostly
в очікуванні	in anticipation
в рамках	within
варто	worth
ввічливий	polite
веде до	leads to
величезний	enormous
взаємопов'язані	interrelated

вибрати	choose
вивчення	study
вид	type of
визнання	recognition
визначити	define
виклики	challenges
виконувати	perform
використовувати	use
вимагати	require
вимоги	requirements
винахідник	inventor
виникати	arise
впливають	emerge
випускник/магістрант	graduate / graduate student
вирішити	decide
витримати	to sustain
від щирого серця	from the bottom of my heart
відвідати	visit
відвідування	visit
віддавати перевагу	prefer
відданий	devoted
відкритий	open
відносини	relationship
відображати	reflect
відомий	known
відповідний	suitable
відпочинок	vacation
відрізняються	vary
відстань	distance
відхилити	reject
вільно	freely
вірування	beliefs
віхи	milestones
включати	include
внесок	contribution
володіти	possess
впевнений	confident
Всесвіт	universe
встановити	set
вступ	introduction
втішений	comforted
втомитися	tired
вузький	narrow
Вчена рада	academic council
вчений	scientist

<p>Г</p> <p>галузі науки гідність гіпотези головуючий голос готовий гуманітарні науки</p> <p>Д</p> <p>данні дедукція декілька динаміка дистанційний дізнатися діяльність діяти добре визначений добре відвідуваний добре відомий добре освічений довголіття довести додаток / подання документів дозвілля дозволяти докази документи домен / галузь/ інтервал/площина допитливість допомогти досить досі дослідження доставити доступний досягнення дратувати дратуєчий думати про думка думки</p>	<p>fields/branches of science dignity hypothesis presiding voice ready humanities</p> <p>data deduction multiple dynamics remote learn activity act well defined well-attended well-known well-educated longevity prove application/ submission of documents leisure allow evidence documents domain/industry/interval/plane curiosity help enough so far research deliver available achievement annoy annoying think about opinion thoughts</p>
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<p>Е еволюція егоцентричний екскурсії експериментальний експертиза/оцінка/виявлення емоційний</p> <p>Ж жаліти жаргон жертвність жива природа</p> <p>З за кордоном забезпечити заборгувати завжди загалом задовільно задоволений задоволення зайнятий закінчити з залежати від залучений до замість запальний запит запобігти запросити заснувати збільшити звичайний звіт здається здатний здатність здоров'я земля зібрання зірка змішаний</p>	<p>evolution egocentric excursions experimental examination/evaluation/detection emotional</p> <p>to be pity jargon sacrifice wildlife</p> <p>abroad ensure indebted always generally satisfactorily satisfied contented busy finish with to depend on involved To instead incendiary request prevent invite to found, to increase ordinary report seems capable ability health earth gathering star mixed</p>
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<p>знайти знання зокрема зрештою зрозуміти зусилля зустріти зустрічі з'являтися</p> <p>І</p> <p>ідея ізолюваний інженер інновації іноді інтегрувати інтерпретувати інший</p> <p>К</p> <p>кар'єра керувати кількість кланяючись кожен колега колекція коливаючись між колоквіум команда координуючий короткий критикувати крок круглий</p> <p>Л</p> <p>легко лист лінії люди людина людство</p>	<p>find knowledge, including ultimately understand efforts to meet meetings appear</p> <p>idea isolated engineer innovation sometimes integrate interpret another</p> <p>career manage number bowing each colleague collection ranging between colloquium team coordinating short critique step round</p> <p>easy sheet line people man humanity</p>
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М	
майстер-клас	master-class
марний	useless
масовий	mass
мають намір	intent
мета	goal
миттєво	instantly
між	between
місцевий	local
мова	language
модифікація	modification
можливість	opportunity
Н	
на додаток до	in addition to
навички	skills
навіть якщо	even if
навколишнє середовище	environment
нагорода / присудження	reward/award
надзвичайно	extremely
надія	hope
налаштувати	set up
намагатися	try
наполегливо	persistently
наполягати на	to insist on
напрямок	direction
насолоджуватися	enjoy
наука	science
науковий	scientific
начальство	superiors
недавно	recent
недоліки	deficiencies
незнайомий	unfamiliar
ненадійний	unreliable
необхідно	necessary
неповний	incomplete
ніколи	never
новизна	novelty
нюанси	nuances
О	
обговорення	discussion
обґрунтовуючи	justifying
обдумати	to consider
об'єднати	to unite

обличчя / зустрітись	face / meet
обманювати	deceive
обмеження	limitation
обмежується	is limited
обмін	exchange
образливий	offensive
обставини	circumstance
огляд	review
однакові	the same
означати	mean
описати	to describe
організоватись	get organized
оригінальний	original
освіти	education
основа	basis
основні навчальні дисципліни	main academic disciplines
особливо	especially
особливості	features
останній	last
остаточний	final
отримати	to get
очевидний	obvious
очікувати	to expect
очолювати	to lead
П	
пальто	coat
паросток	sprout
пацієнт	patient
певний	certain
перевірити	check
передача	transfer
передовий	advanced
переконання	persuasion
переслідувати	pursue
перспектива	prospect
підготувати	prepare
підрозділ	unit
підхід	approach
пізно	late
плаский	flat
пленарне засідання	plenary session
поведінка	behavior
повідомлення	message
повний	full

повторити	repeat
подальший	follow-up
подарунки	gifts
подати документи на вступ/на грант	apply for admission/grant
подібні	similar
події	events
поки	while
покладатися на	relying on
покращити	improve
поле діяльності / галузь	field of activity / industry
помилки	errors
популярний	popular
поради	tips
посилання	link
послідовність	sequence
похідна	derivative
почати з	start from
початок	beginning
поширений	common
пошук	search
пояснення	explanation
правда	truth
правильний	correct
прагнути	strive
практичні навички	practical skills
працівники	employees
праця/робота	work
предмет	subject
представити	present
привабливий	attractive
прийняти	adopt
прийнятний	acceptable
прийняття	acceptance
прийоми	techniques
принцип	principle
природа	nature
природний	proceed
приступити	cause
причина	problem
проблема	production
провадження	failure
провал / невдача	to conduct (conference)
проводити (конференцію)	to be held
проводитися	project
проект	proposal

пропозиція пропускати простий просування професія процедура публікувати	offer to skip simple promotion profession procedure publish
Р радити радники рахунки реакція регулярно репутація ретельний різні рівні рішення родичі розвивати розвиток розглядатися розділяти розмір розпізнати розрізняти розслідування/дослідження розстрочка/частина/засоби/встановлення розсуд розумно розчарований	advise advisors accounts reaction regularly reputation thorough different levels solutions relatives develop development consider divide size recognize distinguish investigation/research installment discretion reasonably disappointed
С свідчити світ свобода симпозіуми скептичний складний скрутне становище слідувати слухати слухачі спектр спекуляції	testify to world freedom symposia skeptical complex predicament follow listen listeners spectrum speculation

сперечатися	argue
спеціалізовані журнали	specialized magazines
співпрацювати	collaborate
співробітники	colleagues/staff
спілкування	communication
спостереження	observation
спостерігати	observe
спостерігач	observer
справа	on the right
сприяти	promote
спробувати	try
ставлення	attitude
стати	become
стаття	article
створювати	create
стійкий	stable
стосовно	relatively
строгий	strict
структура	structure
структурований	structured
стурбований	concerned about
суспільство	society
сутність	entity
Т	
таким чином	thus
також	also
тема	topic
теорія	theory
терміновий	urgent
терпіння	patience
техніки	technique
тисячі	thousands
точний	precise
тренер	coach
тривалість	duration
труднощі	difficulty
турбувати	bother
турбуватися	worry
У	
у всьому світі	around the world
узагальнення	generalization
умови	conditions
унікати	avoid

усвідомити	realize
усмішка	smile
успішний	successful
учасник	participant
уява	imagination
Ф	
формальний	formal
функція	function
Х	
харчування	diet/food
Ц	
центр	center
цінні	valuable
Ч	
частка	share
часто	often
чиабо	or or
численні	numerous
чистий	clean
Ш	
швидкий	fast
швидкість	speed
швидше	faster
широкий	wide
шлях	way
Щ	
щотижневий	weekly
Я	
явище/явища	phenomenon/phenomena
яйцеподібний/округлий	egg-shaped/ovoid/rounded,
як правило	generally
яскравість	brightness
ясно	clear

НАВЧАЛЬНЕ ВИДАННЯ

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