Томский государственный университет систем управления и радиоэлектроники

Кафедра иностранных языков

И.Г. Светлакова

Письменная коммуникация на английском языке

Учебное пособие по развитию навыков письменной коммуникации на английском языке для студентов и аспирантов технических специальностей

Томск
ТУСУР

2011

Содержание

Введение

Высокие темпы научно-технического прогресса, интенсификация глобализационных и интеграционных процессов, происходящих во всем мире, увеличение роли международного сотрудничества в различных сферах жизнедеятельности общества настоятельно требуют от выпускника технического вуза высокого уровня владения иностранным языком, позволяющего осуществлять межкультурное общение в сфере своей профессиональной деятельности.

В процессе осуществления деловых, профессиональных и научных контактов важную роль играет способность специалиста вести письменное общение на английском языке. В связи с этим, одной из главных задач иноязычной подготовки студентов технических вузов, в соответствии с которой разрабатывалось настоящее пособие, является развитие навыков и умений деловой переписки и академического письма на английском языке.

Данное пособие предназначено для студентов, аспирантов и преподавателей технических вузов, а также для всех желающих овладеть навыками письменного общения на английском языке в рамках научно-технической и деловой тематики.

Пособие состоит из трех частей. Первая часть пособия содержит информацию, необходимую для овладения эффективными методами и приемами создания письменных текстов.

Вторая часть пособия знакомит читателя с различными жанрами письменных текстов, их структурой, основными особенностяи, а также фразами и выражениями, характерными для этих жанров. Такая информация представлена в виде структурно-фразовых таблиц, способствующих

эффективному освоению учебного материала. Каждая таблица сопровождается аутентичными образцами написания тех или иных жанров письма. Вторая часть пособия состоит из двух блоков – академическое письмо и деловая переписка. Содержание этой части пособия основывается на требованиях Примерной программы обучения иностранным языкам (в неязыковых вузах), а также на требованиях, предъявляемых к разделу письменной речи таких международных сертификационных экзаменов как FCE, IELTS, TOEFL.

Обе части пособия предваряются кратким обзором содержания и заканчиваются комплексом упражнений, направленных на закрепление материала и развитие приобретенных навыков.

Часть третья представляет собой банк письменных заданий различных жанров и уровней сложности. Особого внимания заслуживают профессионально-направленные задания с адаптацией, разработанные автором в соответствии с тремя типами личности инженера (инженер с направленностью на исполнительскую деятельность, инженер с направленностью на творческую деятельность, инженер с направленностью на организационно-управленческую деятельность). При разработке заданий использовались современные аутентичные материалы.

Раздел «Приложение» включает ознакомительно-обучающую анкету, функции которой заключаются в следующем: 1) ознакомлении студентов с целями и содержанием обучения письменной речи на английском языке и основными понятиями в этой сфере; 2) диагностике имеющихся знаний и опыта студентов в письменной коммуникации на иностранном и родном языках.

Часть I

Создание письменного текста

Рекомендации, изложенные в этой главе, помогут вам овладеть эффективными методами и приемами создания письменных работ. Здесь вы найдете ответы на следующие вопросы:

- ❖ Какие требования предъявляются к письменным работам;
- ❖ Как выстроить ваш письменный текст связно и логично;
- ❖ Каким образом организовать свою работу при выполнении письменных заданий;
- ❖ Как качественно проверить свою письменную работу.

1.1 Общие требования к письменному тексту

Внимательно изучите требования к письменному тексту. Реализация каких требований представляется Вам наиболее сложным? В каком порядке, по вашему мнению, должны следовать данные требования с точки зрения их важности?

➢ Ясность цели создания письменного текста; соответствие содержания текста его главной цели; ясность и аргументированность идей, изложенных в тексте; демонстрация знаний в рамках определенной тематики.

➢ Связность и логичность письменного текста, что предполагает использование различных связующих элементов для связи слов в предложении и для выстраивания логической последовательности повествования на уровне всего текста; наличие формата, соответствующего его жанру, наличие определенной структуры текста, т.е. разбивка текста на некоторое число абзацев, выстроенных в определенной логической последовательности.

➢ Широта и разнообразие используемого словарного запаса; смысловая, стилистическая адекватность слов и словосочетаний; использование необходимой безэквивалентной, специальной лексики, а также этикетных формул, характерных для определенного жанра письменной речи.

➢ Грамотное построение письменных высказываний в соответствии с правилами словообразования (морфологические нормы) и правилами построения предложений (синтаксические нормы); сложность и

разнообразие используемых грамматических структур, их смысловая и стилистическая адекватность.

➤ Нормативное написание слов и правильное употребление знаков препинания.

Связность и логичность письменного текста являются важными элементами его организации, так как благодаря им читатель следует за ходом ваших мыслей и понимает главную идею письменной работы. Логичность и связность проявляются на двух уровнях: на уровне предложения и на уровне всего текста.

Связность и логичность на уровне предложения предполагает:

1. Использование специальных «слов-ссылок» вместо ранее упомянутых слов или фраз.

1.1 Существительное может быть заменено:

▪ местоимениями:

I, he, she, etc. (личные),

my, her, their, etc. (притяжательные);

this ,that, those, these (указательные);

which, that, who, whose (союзные)

myself, himself, herself, etc. (возвратные)

▪ количественными и определяющими словами:

one, some, none, all,

each, neither, such

▪ прилагательными:

 the former, the latter, the first, second,..etc., the last.

* *The most worrying aspect of nuclear technology is **its** use for military purposes.*

1.2. Глагол может быть заменен вспомогательными глаголами:

do/does, did, is.

A lot of companies nowadays have their own technical support departments. So **does ours.*

1.3.Обстоятельство места и времени может быть заменено наречиями

There, then, this

*We have opened a new office in Moscow, and tomorrow I'm flying **their** to make a presentation.*

1.4. Целые предложения или фразы могут быть заменены вспомогательными словами:

so, not, to, it, that, this

∗*Enough atomic bombs, which can completely destroy the planet, have already been built, and this is the real danger to life on Earth.*

2. Использование союзов (and, but, yet, so, or/nor, either/or, neither/nor) в сложносочинительных предложениях:

*Several companies produce training programs on optical discs, **and** marketing managers use presentation packages to make business presentations.*

3.Использование союзов и предлогов в сложноподчинительных предложениях (табл. 1).

Таблица 1

Союзы и предлоги в придаточных предложениях

Тип придаточного предложения	Союзы, используемые для ввода придаточного предложения.
Придаточное определения (attributive clause)	who, whose, which, that, where, when. *Aluminum, which is light and soft, is used to make aircrafts.
Придаточное дополнения (object clause)	what,why, that, if, whether. * Could you inform us when you are having the next workshop?
Придаточное обстоятельства времени (adverbial modifier of time)	when, as soon as, as long as, since, after, before, while, until, no sooner, hardly. *I'll call you as soon as we get the order.
Обстоятельство места (adverbial modifier of	where, wherever *We'll deliver your purchase wherever you ask.

place)	
Обстоятельство причины (adverbial modifier of cause)	as, because, since, because of, due to *The production was stopped because of faulty components.
Обстоятельство цели (adverbial modifier of purpose)	that, in order that(to), so that *New racing bicycles have disc wheels so that wind resistance is reduced.
Обстоятельство условия (conditional clause)	if, unless, in case, provided that, providing, suppose, as/so long as *If the door is open, the machine cannot start.

Логичность и связность на уровне всего текста предполагает:

1. Наличие определенной структуры текста. Каждый текст должен обладать общей структурой (вступление – основная часть – заключение). Однако эта общая структура модифицируется в зависимости от жанра письменной работы. При написании письма жалобы структура текста может выглядеть так: ситуация – проблема – решение – оценка. Подробно о структуре различных жанров будет сказано во второй части пособия.

2. Наличие особой структуры абзаца, что особенно важно для академического письма. Общая структура абзаца может быть представлена следующим образом:

> **1.** Общее предложение, непосредственно связанное с темой письменной работы и дающее общее представление о главной идее, рассматриваемой автором в данном абзаце.
>
> **2.** Раскрытие сути общего предложения:
>   - Доказательства
>   - Примеры
>   - Дополнительная информация
>
> 3. Подытоживающее предложение, подводящее итоги сказанного в данном абзаце.

Безусловно, в зависимости от жанра и цели письменной работы, некоторые элементы структуры абзаца могут отсутствовать или меняться местами.

3. Использование различных связующих элементов (связующие слова, фразы и специальные речевые приемы) для сохранения логики повествования как на уровне отдельного предложения, так и на уровне всего текста (табл. 2).

Таблица 2

Связующие элементы и их функции

Функции	Связующие слова и фразы
Указание перечня явлений, событий и т.д.	First of all,…*/In the first place,…* To begin with,…* First(ly),…* Second(ly)*,…Third(ly),…* First,…Furthermore,…Finally,… First,…* Next,…Then,…After that,…Finally
Указание мнений и предположений	It appears that… It seems that… It is said that… It is generally agreed (accepted, believed, recognized) that…
Добавление информации, подтверждающей или усиливающей ранее сказанное.	Also,… In addition,… Besides,… Moreover,… Furthermore,… What is more…
Обозначение сходства с ранее сказанным.	In the same way,… Likewise,… Similarly,.. Equally…
Переход к новому аспекту повествования.	Let us now turn to… With reference/regard to… As for… Regarding…
Обобщение, подведение итогов ранее сказанного, заключение.	In conclusion,…* Generally, … On the whole,…

	In summary,…*
	Typically,…
	To conclude,…* I
	To sum up,…*
	In conclusion it may be said that…
Обозначение отличий, контраста.	Conversely,..
	In comparison,…
	In contrast to this,…
	(On the one hand)…on the other hand …
	Instead,… …
	whereas…
	On the contrary,…
	……,while…
Приведение примера	For instance,…
	For example,…
	Particularly,… I
	In particular,…
	such as…
	…,namely,…
Объяснение	By this I mean…
	…,that is,…/…,that is to say,…
Указание ссылки	According to…
Указание результатов, последствий.	As a result,…
	So…
	Consequently,…
	Therefore,…
	Hence,…
	Thus,…
Указание альтернативы	Alternatively,..
	On the other hand,…
Перефразирование сказанного.	In other words,…
	To put it simply,…
	That is to say,..
	As I noted earlier,…
Указание на препятствия, которые, тем не менее, не	After all,… However,…
	All the same,… Nevertheless,…

остановили ход действий.	Although,..,(Even) Though, Nonetheless,… Even if,.. Still,… In spite of…/despite this/that…
Обозначение главной идеи	My question is… My primary concern is … The thing (problem) is...
Выражение вероятности	100% Certainly,… Of course, Obviously,… Probably,… Possibly,… Perhaps… Maybe… 0% Uncertainly
Выражение отношения	(Un)doubtfully,… (Un)fortunately,… Surprisingly,.. To my surprise,.. To my astonishment,… To my regret,…
Прямое обращение к читателю	You may think… Consider this… You may ask… Imagine that…
Вопросы (прямые и риторические)	Why are more and more people…? Don't we all have the right to…?

Упражнения:

Упражнение 1.1. *Обведите слова или фразы, к которым относятся выделенные местоимения и слова.*

Modern accounting firms use spreadsheets software to do complicated calculation. *They* can provide their clients with an up-to-date report whenever **it** is needed. **This software** has many functions and can be integrated with other software. The spreadsheet's basic component is a cell. **This** may contain a formula which performs a mathematical operation. **It** can also contain a label or data. **The former** describes the information on the worksheet. **The latter** is the information itself.

Упражнение 1.2 *Преобразуйте предложения в данном абзаце, заменяя некоторые слова местоимениями или другими словами.*

Simian makes sense. We've worked hard to make Simian a powerful, yet easy-to-use, automation system. With Simian's touchscreen compatible, intuitive interface, it appears we've succeeded.

Simian works so well because we are Microsoft certified developers with many years of real-life broadcast experience. Many years of experience gives us a good understanding of what broadcasters need. We don't limit ourselves to our own good ideas either. When we upgrade our software and make design decisions we ask our users what the users want.

Simian is very easy to operate. Just record your music onto hard drive with your choice of editing or recording software and Simian will play he music back according to your program log. Simian is also equipped with BSI's exclusive audio file labeling technology. The audio file labeling technology allows you to insert information right into the audio file. If you transfer the file from one PC to another PC or even to another station via email the label information goes right with the file.

Упражнение 1.3 *Соедините две половины одного предложения так, чтобы оно приобрело смысл. Первое предложение дано в качестве примера.*

1. Speech recognition programs are usually more accurate →	**a)**	if you train the software by reading aloud for about 20 minutes.
2. Some experts consider this technology as belonging to the second generation of mobile telecom systems,	**b)**	and the connection disappeared until it recovered.
3. SMS is based on the increase of data channel capacity through the use of SS-7 facilities for data transfer,	**c)**	immediately after each information-carrying photon.
4. In the first instance we expect quantum cryptography to be used in companies' private networks –	**d)**	while others call it a third-generation solution.
5. A facility of flexible service control lowers user's psychological barriers when subscribing for new services offered by operator,	**e)**	however I've been reluctant to recommend them because they were expensive, complicated, and not terribly reliable.
6. The Cambridge researchers stabilised the system and reduced the error rate by sending a bright "guardian pulse" of light down the	**f)**	whereas for the latter this means facilitation of new services' realization, increase of traffic and growth of incomes.
7.Every time I tried to access my Ofoto account via the Extender, an error message appeared, the Media Center crashed in the other room,	**g)**	for example, to provide secure traffic in a link between two sites within a metropolitan area.
8. I have been interested in fingerprint readers as security tools for a long time,	**h)**	as well as through the enhanced integration of network resources.

Упражнение 1.4 *Помните, что наличие сложных предложений в вашей письменной работе говорит о высоком уровне владения языком и является дополнительным преимуществом при оценивании. Создайте из приведенных*

ниже простых предложений сложные, используя при этом необходимые связующие элементы.

Пример:

Plastics are synthetic materials.

Plastics can be softened and molded into useful articles.

Plastics can be molded into plates, car components, and medical aids.

Plastics are synthetic materials, <u>which</u> can be softened and molded into useful articles, <u>such as</u> plates, car components, and medical aids.

1. Mechanisms deliver the power to work.

They play a vital role in industry.

2. A liquid is heated.

It changes into gas.

3. Al. Bell found an assistant.

The assistance was a specialist in electrical engineering.

4. This program is very interesting.

It can damage your computer.

5. A load is placed on the platform.

The platform causes the load cell to bend very slightly.

6. The accident happened.

The operator was careless.

The supervisor was not present

7. Office workers use many computer applications.

Computer implications include: spreadsheets, word processing, and database.

8. Computers have been reduced in both size and cost.

There were advances in design and technology.

9. You are creating a new database.

Decide how many fields you need in your database.

You will have to provide up to five items of information about each field.

10. Aluminum is used to make aircraft, engine components.

Aluminum is used to make cylinder heads.

Aluminum is light, soft and ductile

Упражнение 1.5 *Измените структуру предложения, не изменяя его смысла. Каждое новое предложение начинается с заданных слов, которые не меняются.*

1 The order arrived late but we were able to supply the goods on time.

Although_____.

2 There was fog at the airport, but our plane landed safely.

In spite of_____.

3 As there was a mistake in the drawing, I had to draw another one.

Because of_____.

4 The reason why I sent them a letter of complaint was to inform them about the faults at once.

In order to_____.

5 Because there has been an error in the sales department, the order will have to be checked again.

Due to_____.

Упражнение 1.6 *Вставьте в текст подходящие по смыслу связующие элементы, указанные в рамке.*

| for instance | therefore | however | moreover |
| second | first of all | in spite of these advantages | |

The most positive thing I have done since I started university is to get involved with cyberspace. _____, I have learned to use Internet as an adjunct to my classes. My Chemistry professor, _____, has a Web site where he posts homework solutions, midterm examples, and lecture notes. Each day I visit the site to compare my class

notes with his to make sure they are accurate. _____, for biology, I can do a step-by-step dissection of frog, all on line or interactive.

However, sites on the Web are not confined to the sciences, as I have heard about a "dynamite" Web site for Chinese, where it is possible to walk on the Great Wall.

The_____reason why learning to use cyberspace is so important is using e-mail. When I arrived at school, I eagerly set up my e-mail account and started contacting my friends on campus and back home. _____, I soon found that e-mail is more than simply entertainment, for I can use it to contact my professors. For example, my macroeconomics professor has opened office hours from 7:00 to 9:00 PM Thursdays on the net, where we can talk on line with her. Many professors also send out assignments via e-mail.

_____, it is important not to become an Internet freak. To avoid this problem, I am confining my use of the Internet to academics during the week. On the weekends, I can catch up with my friends via e-mail and surf the net for new and interesting sites. _____,I use the Internet positively.

Упражнение 1.7 *Разбейте данный текст рекламы на абзацы.*
Stanford Microdevices, one of the industry's most innovative designers and suppliers of high-performance RF components for communications equipment, has a new name: Sirenza Microdevices. Our new name identifies a dynamic company – a company building upon its solid leadership in RF/microwave technology to extend uncommon innovations to emerging requirements in applications such as fixed and mobile wireless infrastructures. As always, SMDI products will meet the most demanding requirements for connectivity, mobility and reliability in today's- and -tomorrow's telecommunications networks. As Sirenza Microdevices, the company is delivering its technological leadership to an even broader range of advanced communications markets and applications.

Упражнение 1.8 *Ниже приведены первые предложения отдельных абзацев. Закончите каждый абзац в соответствии с его структурой.*

1. The widespread availability of computers has changed the world forever.

2. Internet access is necessary for all students.

3. Computer hacking is a threat to many people.

4. Pirates must be strictly punished for their unfair business.

5. The development and production of nuclear weapons must be stopped.

1.2 Организация работы по написанию письменного текста

Процесс создания письменного текста состоит из 4 этапов:

➢ подготовительного

- чернового
- проверочного (редакционный)
- чистового (издательский)

На подготовительном этапе необходимо ответить на следующие вопросы:

o К кому обращено данное письменное сообщение?

Это поможет вам выбрать предполагаемый стиль общения с читателем (формальный, неформальный).

o Какова основная цель письменной работы?

Это поможет создать подходящий план содержания вашего письменного текста.

o В каком жанре выполняется данная письменная работа?

Это поможет вам выбрать подходящий формат и структуру письменного текста.

После того, как вы ответили на все вышеперечисленные вопросы, переходите к разработке плана письменного текста, который будет определяться его жанром (см. часть II). Однако помните, что структура письменного текста любого жанра включает в себя три необходимых составляющих: введение, основную часть, заключение. Распределите ваши идеи таким образом, чтобы они вписались в выбранную вами структуру. Не забудьте также распределить идеи по абзацам. При этом следите за логичностью каждого абзаца. В качестве примера предлагаем план эссе на тему: «To what extent is nuclear technology a danger to life on Earth? What are the benefits and risks associated with its use?»

Plan

Introduction (par. 1):

- ✓ presentation of the problem
- ✓ my opinion (peaceful purpose, military purpose-both are dangerous.

Main body: Three ways of using nuclear technology, it's benefits and risks

- ✓ (par.2) nuclear power plants: it's benefits (reasons +examples); it's risks (reasons+example)
- ✓ (par.3) the use of nuclear technology in medicine(cancer treatment)-it's benefits (explanation) and risks (reasons)
- ✓ (par.4) production of atomic weapons (risk of war, examples, current situation)

Conclusion: (par.5)

- ✓ summary points +recommendation (disarm!)

На этапе создания чернового варианта письменной работы рекомендуется:

1. Писать аккуратно, через строчку, оставляя при этом свободные места на полях.

2. Сосредотачиваться, главным образом, на содержании, а не на грамматике или правописании.

3. Выделять любым способом те элементы текста, в которых вы сомневаетесь или хотели бы в дальнейшем изменить.

Проверочный этап состоит из следующих шагов:

1. Внимательно прочитайте вашу работу. При необходимости сделайте некоторые перестановки и внесите дополнения.

2. Найдите лучший или правильный вариант представления выделенных ранее элементов текста.

3. Далее воспользуйтесь специальным листком самопроверки письменных работ. Указанные ниже вопросы помогут вам детально проанализировать вашу работу. При обнаружении недочетов постарайтесь сразу же внести соответствующие коррективы или дополнения

Лист самопроверки письменных работ

> - Ясна ли цель вашей работы?
> - Включена ли в текст вся необходимая информация? Не содержит ли текст лишней информации?
> - Ясно ли выражены ваши идеи? Аргументированы ли ваши утверждения?
> - Есть ли у текста определенная структура, соответствующая его жанру?
> - Разделен ли текст на абзацы в соответствии с логикой повествования?
> - Используются ли в тексте подходящие связующие элементы и приемы, обеспечивающие его связность и логичность (союзы, слова-ссылки, наречия, и т.д.)?
> - Соответствуют ли слова и фразы заданному стилю письменного общения (формальному или неформальному)?
> - Включены ли в текст слова и выражения, характерные для данного жанра письма и для данной темы повествования?
> - Правильно ли написаны слова?
> - Представлен ли в вашей работе достаточно широкий диапазон различных грамматических структур?
>
> - Правильно ли использованы выбранные вами грамматические структуры?

Для проверки грамматики рекомендуем воспользоваться специальной памяткой «Check your grammar».

Памятка «Check your grammar»

- ❖ Прочитайте первое предложение текста. Закончено ли оно по смыслу?
- ❖ Определите коммуникативный тип предложения (вопросительное, отрицательное, повествовательное, повелительное).
- ❖ Выделите в этом предложении подлежащее и сказуемое. Стоят ли все члены предложения в правильном порядке в соответствии с коммуникативным типом предложения? В каком залоге используется сказуемое (в активном или пассивном)? Если сказуемое стоит в пассивном залоге, не забудьте использовать вспомогательный глагол to be.
- ❖ Определите временную форму сказуемого. (present indefinite/present continuous/present perfect/present perfect continuous, etc.).
- ❖ Используются ли в построении временной формы необходимые вспомогательные глаголы (to be, to have, to do)?
- ❖ Проверьте в правильной ли форме используется сам глагол (Причастие I, Причастие II, Прошедшая форма глагола). Для этого вам нужно также знать, является ли глагол правильным или неправильным. Не забудьте об окончании s в третьем лице единственного числа у глаголов в форме Present Indefinite.
- ❖ Если вы используете модальный глагол, проверьте правильность его значения.
- ❖ Если предложение состоит из нескольких придаточных предложений, удостоверьтесь в правильности использования связующих элементов и проверьте каждое предложение отдельно. С особым вниманием отнеситесь к придаточным условия.

Придаточное условия	Главное предложение
If A does X (real; future)	A(B) will do Y
If A did X (unreal; future, present)	A(B) would do Y
If A had done X (unreal; past)	A(B) would have done Y

- ❖ Внимательно проанализируйте существительные. Определите, является ли данное существительное исчисляемым или неисчисляемым.
- ❖ Проверьте правильность употребления близлежащих количественных прилагательных (much/many, etc.), а также категорию числа глаголов (помните, что неисчисляемые существительные, как правило, имеют единственное число!).
- ❖ Проверьте правильность написания формы множественного числа у исчисляемых существительных (помните об исключениях!).
- ❖ Проверьте использование определенного и неопределенного артикля с существительными и прилагательными.
- ❖ Проверьте использование предлогов.
- ❖ Проверьте правильность использования заглавных букв в именах собственных и в местоимении «I».

- ❖ Проверьте правописание слов.

На этапе проверки не лишним будет обменяться работами с одним из ваших одногруппников и проверить работы с помощью листа:

Peer Editing Review (writing)	
Author	Peer
Title	Date

Read your peer's writing carefully and answer the following questions:

1. What are the strongest points of this work (interesting content and ideas, rich vocabulary, good grammar, good organization, correct spelling, etc.);

2. What information would you add to the text (to the paragraph) and why;

3. What information would you leave out of the text and why;

4. Do you think the organization could be improved (paragraphing, adding linking expressions and devices, changing the structure);

5. Would you make any changes in grammar and spelling (underline the areas you find incorrect);

6. Which vocabulary items (words, phrases, clichés) would you change or add (circle these items or add the new ones);

7. How would you assess your group mate's work:
   ✓ Perfect (no changes are needed)
   ✓ Good (some minor corrections and changes are necessary)
   ✓ He/she should try to rewrite the text after making a lot of correction and changing.

При создании окончательного варианта вашей письменной работы учтите все пункты, указанные в листе самопроверки. По завершению не забудьте еще раз проверить весь текст.

Упражнения:

Упражнение 1.9 *Прочитайте нижеследующие письменные задания. Определите, к кому будет обращен созданный письменный текст, в чем заключается его главная цель и каков его стиль и жанр. Составьте план содержания письменного текста к каждому заданию.*

1. Many psychologists say that it is very bad for children to play computer games. To what extent do you agree or disagree with this statement? Use your own ideas and experience to support your arguments with examples and relevant advice.

2. The president of the association of computer software manufactures has asked you to write an article for a general magazine informing the public about the losses of software manufactures caused by pirates and calling upon the public not to buy pirated products. The title of the article – "Software manufacturers declare a war to pirates".

3. You are a Sales Manager in a big computer company. You have just received a new model of laptop computer. Write a letter to your regular customer offering him the new model with its detailed description attached.

4. You have been given a task to conduct a survey among your group mates in order to learn their opinion on the following question: "What Russian inventor made the greatest contribution into the development of the Russian science". Write a report showing the results of your survey.

5. Two month ago you have ordered a consignment of Firemaster-high temperature performance fiber from Morgan Ltd.(N 3467).It was agreed that the materials had to be delivered within 4 weeks after the date of ordering. The consignment has not been delivered yet. Write a letter to Morgan Ltd. complaining about the delay in delivery.

6. You are an Import Manager of a big hi-tech company. You have just read an article in a science magazine advertising a new development of the Japanese scientists – Wakamuru, humanoid robot. You think it would be possible to find some people willing to buy this robot in Russia. Write a letter to Mitsubishi Heavy Industries asking them for some information.

Упражнение 1.10 *Прочитайте эссе, написанное студентом на тему: "To what extent is nuclear technology a danger to life on Earth? What are the benefits and risks associated with its use?». Оцените его по пятибалльной шкале, предварительно проверив с помощью листа самооценки или листа взаимооценки письменных работ. Найдите и исправьте грамматические, лексические и стилистические ошибки, а также ошибки в организации текста.*

These days, many people afraid of nuclear technology, because of the dangers, associated with their use. On my opinion it is true. Nuclear weapons bring the greatest threat to life.

Nuclear power stations provide an important source of cheap power for many industrializing nations and some developing countries. Moreover, there is always the danger of radiation leaking from this plants. Even though safety precautions are taken, their had been numerous disasters. The use of nuclear technology for peaceful purposes also bears some serious risks.

Nuclear technology is even been used to help cure some diseases such as cancer. Radiation can be applied to the body to burn away cancerous cells. This is, however a dangerous procedure, thus, the application of radiation is almost always painful and not always successfully. The most worrying aspect of nuclear technology is its use for militarian purposes. Enough atomic bombs have already been build to fully destroy the planet, however, the real danger is that one day some country will start a war by these weapons.

For conclusion, nuclear is dangerous. It would have been better if it had never been used to create nuclear weapons. If life on Earth is to continue, all the nuclear nations of the world can agree to disarm a.s. p.

Часть II

Жанры письменных текстов и правила их написания

Как вы уже знаете, организация и языковые характеристики текста целиком зависят от того, к какому жанру письма он относится. В этой главе вы сможете подробно ознакомиться с основными жанрами письменных работ и особенностями их создания, а именно:

- ❖ понять, что представляют собой основные жанры письма;
- ❖ ознакомиться со структурой содержания различных жанров;
- ❖ узнать фразы и выражения, характерные для этих жанров;
- ❖ изучить образцы рассматриваемых жанров письма.

2.1 Академическое письмо

2.1.2 Написание отчета

Report writing

Отчет – объективное сообщение о фактах, исследованиях, событиях свидетелем или участником которых вы были. Отчет часто включает в себя рекомендации со стороны автора. Язык данного вида письменной работы, безусловно, носит формальный характер.

Таблица 3

Структурно-фразовая таблица для отчета

	Структура	Характерные фразы и выражения
Введение	1.Цель	This report is intended to describe/evaluate/present… The chief aim/key goal/main purpose/major task of this report is … The present report investigates/deals with… In this report I aim to determine/to examine …
	2. Методы исследования	I interviewed some people… I have conducted a number of experiments… Several people answered our questionnaire … To obtain the required information some experimental observations have been made.
Основная часть	3. Результаты	Most people think/said/expressed the opinion/told that… The experiments have shown that… As our observations show… The following reasons/opinions were given: 1…. 2…. The following data have been obtained: • … • …
Заключение	4. Выводы	In conclusion it must be said that… In general, the results indicate that… To sum up I would like to underline the fact that…
	5.Рекомендации	I would recommend, therefore, that… I would certainly recommend… My recommendation is…

Образец отчета:

Задание: *The school where you study English has received a donation from an ex-student who has said that money should be spent on either computers or video equipment. You have been asked to write a report to the school council, describing the benefits to the school of both projects and saying which one should be chosen and why.*

Introduction:

The aim of this report is to describe the benefits of buying computers and video equipment and to suggest which resource our school should choose. I interviewed students from each class to get their opinions.

Computers:

Many students (67%) thought that computers were very useful for language learning. They gave the following reasons for having this opinion:

1. English word processors are good for practicing writing
2. Access to the internet and e-mail provides reading and writing practice
3. Computer games can be a fun way of learning.

Nevertheless, a small group (16%) said that they did not know how to use a computer.

Video equipment:

Although the school already has a video in classroom B2, many students (55%) said it would be a good idea to have a video in every classroom. All students enjoy it when their teachers use video in class.

Conclusion:

Both kinds of equipment obviously have benefits. Although video equipment was a popular choice it is important to remember that we already have one video but no computers. Therefore, the computer option seems best.

2.1.2 Написание научной статьи

Research article writing

<div align="right">Таблица 4</div>

Структурно-фразовая таблица для научной статьи

Введение	1.Аннотация (abstract) 2.Постановка проблемы, ее актуальность. 3.Выдвижение гипотезы.	 This article is intended to describe/evaluate/present… The present paper investigates/deals with… The subject matter of our research is… The main reason for undertaking this research/conducting these experiments is… We/I claim/ hypothesize/set up a hypothesis that…
Основная часть	4.Методы исследования (methods) 5.Результаты исследования (results)	In order to obtain the required information we have conducted a number of experiments/tests Experimental observations have been made… The analysis of scientific literature has shown… As the result the following data/information has been obtained…
Заключение	6.Обсуждение результатов(discussion) 7.Краткие выводы (summary, conclusions)	The results of our investigation/research/experiments indicate/prove/demonstrate/show… The results of the investigation allow us/me to claim/put forward/single out… Our results highlight … It should be noted that… The major points covered by this paper may be summarized as follows… In this paper we/I have made the following claims. First, … We/I have succeeded in showing….

| Приложение | 8.Библиография (bibliography) | |
| | 9. Дополнительные материалы (appendices) | |

В содержании научно-исследовательских работ необходимо правильно представлять описание того или иного предмета, процесса или явлений. В этом вам поможет таблица 5.
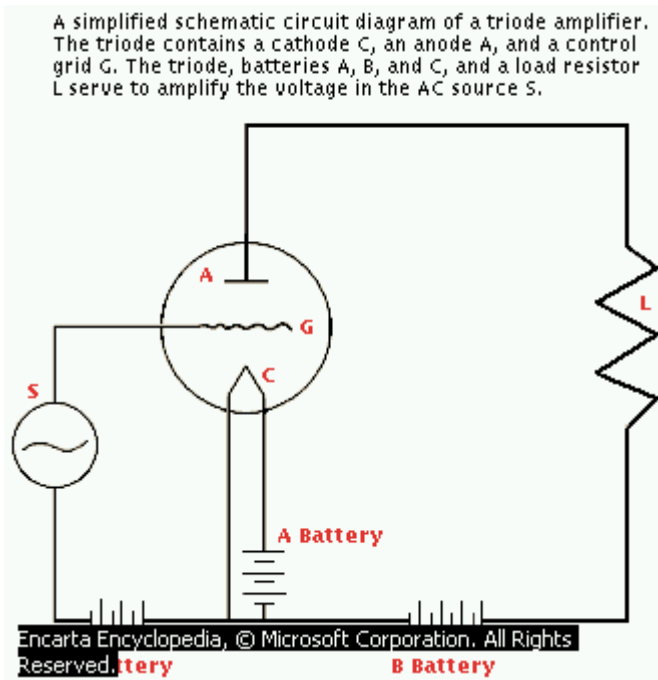
Таблица 5

Слова и фразы для описания предметов, процессов и явлений

Цель высказывания	Специальные слова и фразы
Классифицировать (от целого к составным компонентам)	to be divided into to be made up of to be composed of comprise consist of
Классифицировать (от составных компонентов к целому)	make up constitute form to be classified as
Дать определение	to be known as to be called to be referred here as
Указать местонахождение	to be placed (between/under/above) to be located to be connected to
Указать на функции	to be used for doing something to be used to do something something is done by doing something
Указать причинно -следственную связь	Cause ⟶ Effect to cause to result in to lead to Effect ⟶ Cause

	to be caused by
	to result from
Представить последовательность действий	First…then…next…after that…finally

Образец описания устройства:

A simplified schematic circuit diagram of a triode amplifier. The triode contains a cathode C, an anode A, and a control grid G. The triode, batteries A, B, and C, and a load resistor L serve to amplify the voltage in the AC source S.

The diagram above shows a vacuum tube amplifier circuit which consists of a triode, load resister, batteries, and variable voltage source. The triode is an evacuated glass tube that consists of a cathode C, anode A, and grid G. Battery A heats the filament in the cathode so that electrons are free to move. Battery B maintains a potential difference between the cathode and anode and supplies the energy that the electrons gain when they flow from the cathode to the anode. This flow can be controlled by applying a negative voltage to the grid with Battery C. The higher the negative voltage on the grid, the fewer electrons flow from the cathode to the anode. Small changes in grid voltage from a radio or audio signal S can produce large variations in current flow from cathode to anode and throughout the rest of the circuit.

Образец научной статьи (сокращенная версия):

This article presents the Terminal Independent Mobility for IP (TIMIP), which is a new architecture for IP mobility in wireless access networks.

Increasing demand for user mobility throughout the global Internet has launched a successful LAN market and created the need for a new Internet architecture for IP mobility. This is the main is reason for undertaking the research of Terminal Independent Mobility for IP(TIMIP) presented in this paper.

A TIMIP domain is an IP subnet organized as a logical tree of access routers whose root is the access network gateway. In TIMIP, power-on and handover are inferred from layer-2 notification at the wireless access points. Consequently, IP mobility signaling is completely implemented in the network nodes and thus transparent to the IP layer of terminals. Although authentication still requires some functionality to be performed at terminals, it can be implemented as an independent application with no impact on IP protocol stack. This contrasts with the access network gateways (CIP) and Handoff-Aware Wireles Access internet Infrastructure (HAWAII) solutions proposed to the IETF that require the IP protocol stack of the mobile terminals to be changed to support special mobility signaling, which can be a hard task if we consider the variety of mobile terminals, operating systems, and versions available.

As the result of our investigation the main features of TIMIP have been singled out. TIMIP combines some advantages from CIP and HAWAII. Like CIP, refreshing of routine paths is performed by data packets sent by the mobile terminals, with signaling being employed only when no traffic is detected at the routers for a certain time interval. Like HAWAII, routing reconfiguration during handoff within a TIMIP domain only needs to change the routing tables of the access routers located in the shortest path between the new AP and the old AP. Another feature similar to HAWAII is that routing of data packets within a TIMIP domain does not need to reach the access routers located in the shortest path between the sender and the receiver.

Preliminary tests in a simple configuration with two access points (APs) and one access network gateway (ANG) have shown that handoff latency due to TIMIP is not higher than 4 ms, which is satisfactory given the fact that APs and ANGs used in the tests were based on PCs running LINUX with a TIMIP user space implementation. Test scenarios with more network nodes will be performed in the

> near future.
>
> In this article we have succeeded giving the general description of Terminal Independent Mobility for IP (TIMIP) in comparison with access network gateways and Handoff-Aware Wireless Access internet Infrastructure.

2.1.3 Интерпретация данных, представленных в графическом виде

Часто отчет и научная статья включают информацию, представленную графически в виде таблицы или рисунка. Такую информацию необходимо уметь грамотно интерпретировать в письменной форме.

Таблица 6

Интерпретация данных, представленных в графическом виде

Этапы	Характерные фразы и выражения			
Общее описание рисунка (что, где, за какой период)	The table (diagram, graph, bar, chart, picture) shows/describes/illustrates…			
Общая организация информации;	The figures are divided into two groups:… The columns represent.. The horizontal (vertical) axis indicates/shows…			
Презентация данных в соответствии с представленными элементами таблицы, диаграммы и т.д.;	According to the table/chart, etc…. As can be seen from the figures, diagram, etc…. As shown in the graph, picture, etc…. It can be seen from the table that… We can see from the diagram that… It is clear from the figures that…			
Сравнение различных показателей.	It was (much) more/less/fewer… than.. Twice/three times as much/many/little/few as… There was as much/many … as.. The same number/proportion/amount of…as…			
Указание тенденций развития, изменений и т.д.	The number of…has The amount of…has	jumped risen, increased, decreases, dropped, fallen	rapidly dramatically, suddenly, sharply, steeply, considerably	from…to between…and
	There is (was) a	slight slow gradual large rapid sudden	rise increase decrease decline reduction fall	in the number of… in the amount of…

Выводы	From the information given, I conclude that …(infer that…assume that)
	From the information given, it can be decided that …(concluded that …inferred that …assumed that …)
	The information (in the text/ in Figure…) implies that suggests that …hints that …

Образец описания графических данных:

Задание: *Describe the table below summarizing some data collected by a college computer shop for the year 2003.*

	Non- Computer club Members			Computer Club Members	Total
	College Staff	College Students	Members of Public		
CD-ROMs	44	31	-	76	151
Modems	29	194	122	942	1287
Floppy discs	332	1249	82	33	1696
Total	405	1474	204	1051	3134

The table shows the sales figures of CD-ROMs, modems, and floppy discs in a college computer shop for year 2003. The figures are divided into two groups: sales to non-Computer Club members and to Computer Club members.

As seen from the table, the non-Computer Club member figures comprise sales to college staff, college students, and members of the public. College staff bought 332 floppy discs, 44 modems and 29 CD-ROMs. College students bought 1249 floppy discs, 194 modems and 31 CD-ROMs. More magazines were sold to college students than to any other group of customers. Although no CD-ROMs were sold to members of the public, they purchased 122 modems and 82 floppy discs.

It is clear from the figures that, Computer Club members bought more CD-ROMs (76) and modems (942) than other customers. On the other hand, floppy discs sales to Club members (33) were fewer than for any other type of customer.

The total number of hardware sold for the year was 3134 (1474 to college students, 405 to staff,

204 to the public, and 1051 to Computer Club members). Of this figure, 151 items were CD-ROMs and 1287 were modems. Therefore, magazines accounted for the greatest number of sales (1696).

2.1.4 Написание эссе

Essay writing

В контексте международных экзаменов по английскому языку данный вид письменной работы предполагает рассмотрение определенной проблемы с различных точек зрения, в различных аспектах, с последующей аргументацией своего собственного мнения. В академическом контексте английское слово "essay" предполагает написание реферата, т.е. краткого изложения научной литературы по определенной теме. Данный жанр письма имеет формальный стиль.

Таблица 7

Структурно-фразовая таблица для эссе

	Структура	Характерные фразы и выражения
Введение	Постановка проблемы и главной цели работы (о чем вы пишите, и что вы собираетесь сказать вашему читателю).	There is a proverb (saying), which says:… They say… These days… It is often said that… It is widely recognized that… …..is a serious problem nowadays… In this composition I will discuss/consider…and express my own opinion on the matter. In this essay I will consider both advantages and disadvantages of this phenomenon.
	Помните, что содержание основной части зависит от цели письменной работы, указанной в задании.	

Основная часть	Объяснение (аргументация) вышеназванной идеи.	What I mean here is… What I am trying to say here is.. First of all it should be noted that… Secondly, it is necessary to take into consideration..
	Доказательства, примеры, дополнительные детали	In addition…Moreover For example.. There is another reason for…
	Рассмотрение альтернативных точек зрения	A number of people think that… Others may argue that… Those who disagree point out that… While it is true that…on the other hand…
	Выделение преимуществ и недостатков	However there are some disadvantages (advantages) of… It has both negative and positive sides
	Выражение собственного мнения	Although it is true that…in my opinion… I find it hard to believe/agree that… From my point of view… In my opinion… I'm convinced that… From my experience
Заключение	4.Выводы	In conclusion it must be said that… In general, it is obvious/clear/inevitable that… To sum up I would like to …
	5.Рекомендации, советы, предложения	I would recommend, therefore, that… It would be a good idea to… It would be better/wiser/easier to….

Помните, что в зависимости от цели и типа задания, а также в зависимости от вашего творческого настроя, вы всегда можете изменить элементы содержания структуры вашей письменной работы, однако, общая структура (Введение – Основная часть – Заключение) должна оставаться без изменений.

Одним из самых сложных моментов при написании эссе является ответ на вопрос: «Что можно написать по этой теме»? Такой вопрос можно решить с помощью различных методов генерации идей:

❖ Метод ассоциаций

Быстро, на черновике набросайте слова или фразы, которые ассоциируются у вас с предложенной темой или ключевым словом в формулировке названия темы. Попробуйте сгруппировать эти слова в отдельные блоки и развить заложенные в них идеи. Таким образом, вы можете создать визуальную карту ассоциаций, которая поможет в подготовке плана содержания вашей работы.

❖ Аспектный анализ

Данный метод заключается в выделении различные аспекты заданной темы, которые в последствии могут быть раскрыты. В любой проблеме можно выделить такие аспекты как:

- ▪ История
- ▪ Факты
- ▪ Причины и последствия названных явлений
- ▪ Положительные и отрицательные стороны названных явлений
- ▪ Примеры из жизни
- ▪ Личный опыт

❖ Метод вопросов

Представьте, что вы журналист, которому предстоит интервью со специалистом. Приготовьте как можно больше вопросов по заданной теме, используя специальные вопросительные слова: what, who, where, when, how, why, what for, which. Поразмыслите над ответами, по возможности расширьте их, после чего сгруппируйте и составьте план работы в соответствии со структурой эссе.

Образец эссе:

Задание: *A university lecturer has asked you to write an essay on the following topic: "To what extent is nuclear technology a danger to life on Earth? What are the benefits and risks associated with its use?*

These days, many people are afraid of nuclear technology because of the dangers associated with its use. In my opinion, though it is true that nuclear weapons pose the greatest threat to life, the use of nuclear technology for peaceful purposes also carries some serious risks.

Nuclear power stations provide an important source of cheap power for many industrialized nations and some developing countries. However, there is always the danger of radiation leaking from these plants. Even though safety precautions are taken, there have been numerous disasters.

Nuclear technology is even used to help cure some diseases such as cancer. Radiation can be applied to the body to burn away cancerous cells. This is, however a dangerous procedure, besides, the application of radiation is almost always painful and not always successful.

The most worrying aspect of nuclear technology is its use for military purposes. Enough atomic bombs have already been built to completely destroy the planet, however, the real danger is that one day some country will start a war with these weapons.

In conclusion, nuclear technology certainly has positive uses but nevertheless dangerous. It would have been better if it had never been used to create nuclear weapons. If life on Earth is to continue, all the nuclear nations of the world should agree to disarm as soon as possible.

2.1.5 Написание аннотации

Abstract writing

Аннотация представляет собой краткую характеристику содержания письменного источника. По целевому назначению аннотации бывают справочными, т.е. раскрывающими основную тематику источника, и рекомендательными, т.е. включающими оценку содержания с точки зрения его пригодности для какой-либо цели.

Методика написания аннотации:

1. Внимательно прочтите текст.

2. Определите его основную тему.

3. Читая текст во второй раз, выделяйте ключевые слова (слова, раскрывающие главную тему).

4. Сформулируйте для себя главную мысль и цель каждого абзаца. Помните, что обычно первое предложение абзаца содержит в себе его основную идею.

5. Составьте черновой вариант аннотации на основе проделанных вами операций.

6. Проверьте, нет ли в вашей работе лишних слов или не относящихся к главной мысли текста.

7. Составьте чистовую версию аннотации.

8. Проверьте работу на наличие грамматических ошибок.

Таблица 8

Структурно-фразовая таблица для аннотации

Структура	Характерные фразы и выражения
Библиографическое описание письменного источника	Mockapetris, Intrnet Engineering Task Force RFC 1034, Domain Names – Concepts and Facilities, 1997, **http://www.ietf.org/rfc/rfc 1034.txt** Garver, Wayne; Moss Frank (1999): "Detecting signals with noise": Science, Cambridge: Cambridge University Press, 26-37.
Указание формы аннотируемого источника и общего предмета его изложения Основные аспекты повествования, затрагиваемые автором	This article (the book/the document) describes/explores/presents an overview of… In this work the problem of…..is discussed/considered The author (the article/the book/the document) describes/explores/focuses on/exposes/gives an overview/demonstrates/offers/provides/emphasizes…
Указание немаловажных деталей, нюансов содержания	It should be noted that… It is shown that The article concludes with ..

Образец аннотации к прочитанному тексту:

Dave Marples, " The open service gateway initiative." IEEE Communications magazine, Dec.2001 vol. 39, No 12, pp 110-114

This article outlines the benefits of the Open Service Gateway Initiative (OSGi), typical markets, and example use cases. The author describes the architecture of system and the capabilities that are afforded by the latest release. The article concludes with a brief glimpse into the future specifications that are expected to result from OSGi initiative.

Образец аннотации к написанной автором научной статье:

Home Networking with Universal Plug and Play

by Brent A.Miller, Toby Nixon, Charie Tai, Mark D. Wood

Abstract

In this article we present an overview of the Universal Plug and Play technilogy and the UpnP Forum, the multicompany organization that develops parts of architecture. A technical description of the technology is presented? Followed by three illustrative usages cases where it could be applied in home networking environments. Finally, the authors describe the benefits UpnP technology can provide in home networking and briefly discuss potential future work in this area.

2.1.6 Написание реферата

Essay writing

Реферат предполагает краткое изложение содержания научной литературы по определенной теме. Материал предоставляется в форме консультации или описания. Информация излагается точно, кратко, без искажений и субъективных оценок.

Таблица 9

Структурно-фразовая таблица для реферата

Структура	Характерные фразы и выражения
Цель и методика исследования (изучения) или разработки	This essay is intended to describe/evaluate/present… The chief aim/key goal/main purpose/major task of this paper is … The present paper investigates/goes into/deals with… A number of scientific documents/publications have been studied in order to obtain the required information.
Конкретные данные о предмете исследования (изучения) или разработки, его изучаемых свойствах и особенностях.	The phenomenon/process consists of/comprises/includes/is divided into… It is characterized by…. It's properties/peculiarities/features are…
Выводы	The major points covered by this paper may be summarized as follows: In this paper the following issues have been considered: In general, the results indicate that…
Справочный аппарат (число страниц, список литературы, примечания референта)	References I would like to argue/underline/point out/clarify…
! Не забудьте, что в процессе реферирования, вы постоянно делаете сноски на различных авторов и различные источники.	According to X X points out/claims/defines/explains/proves/shows X's article demonstrates/investigates… In X's work it is said/shown that…

2.2 Деловая корреспонденция

2.2.1 Правила составления делового письма

1. Перед тем, как начать составление письма, точно определите его основную цель. Наилучшим вариантом считается наличие у письма темы (тема обычно указывается после обращения; в электронных посланиях тема вписывается в графу SUBJECT).

2. Набросайте на черновик основные моменты, которые вы хотели бы обсудить в письме. Объедините эти идеи в абзацы. Постарайтесь сделать так, чтобы каждый следующий абзац заключал в себе новую идею. Избегайте написания слишком сложных предложений.

3. В окончательном варианте ваше письмо должно отвечать следующим требованиям (требования 5 «С»):

1.**C**learness – все ваши идеи должны быть ясно изложены.

2.**C**ompleteness – письмо должно включать всю необходимую информацию.

3.**C**onciseness – текст письма должен быть по возможности краток и лаконичен.

4.**C**ourteousness – письмо должно быть предельно вежливо по отношению к адресату.

5.**C**orrectness – письмо должно быть грамотным с точки зрения стилистики, грамматики, правописания и пунктуации.

Существует несколько способ написания даты, будьте внимательны, здесь легко допустить ошибку. Варианты написания даты:

10 August 2006   *10th August 2006*
August 10, 2006   *August 10th , 2006*

При написании даты желательно не использовать сокращения или цифровые обозначения, так как можно ошибиться в расшифровке даты. Дело в том, что в Великобритании и Америке даты пишутся по-разному. Так, дата 10.08.2006 в Англии обозначает 10 августа 2006 г., а в США 8 октября 2006.

2.2.2 Общая структура делового письма

⟶   17 Princes Street

London

EC1 700

England

5 March 2002*

Mr James Green

Marketing Director

United Products Ltd.

999 Park Avenue

Rockford

IL 57893

USA

Dear Sir or Madam (если вы не знаете имени адресата)

Dear Mr/Mrs/Miss/Ms/Pr/Dr Jones (если вы знаете имени адресата)

Dear Paul (если вы находитесь в приятельских отношениях с адресатом)

I'm writing to (thank you, complain about, apply for, inform…)

I'm writing regarding/about

We are…

We are interested in…

Currently I am…

I'm sending you

Please, find enclosed (attached)…

I look forward to hearing from you (at your earliest convenience/as soon as possible (asap)).

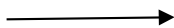Yours faithfully/truly (если вы не знаете имени адресата)

Yours sincerely (если вы знаете имя адресата)

Best wishes (если вы находитесь в приятельских отношениях с адресатом).

Ms Gillian Jones

Sales Manager

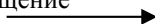Адрес отправителя (правый верхний угол   или наверху в центре)

Дата написания письма

Фамилия, должность, название компании, адрес получателя
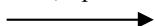
Обращение

Указание цели письма

Предоставление необходимой информации (в том числе и о себе, особенно если обращаетесь впервые)

Вложение, приложение

Завершающее письмо реплика

Прощание

Роспись

Имя   Фамилия

Должность

2.2.3 Письмо-предложение

Letter of offer

Структурно-фразовая таблица для письма-предложения

Структура	Характерные фразы и выражения
Информация о себе или о своей компании (если вы пишите впервые).	We are a software company….. Currently we are developing/working at… We do a considerable trade in this line… We are the leading dealers in this town (area, country…)… We have connections throughout the country… We are sole agents for this product…
Информация о товаре (услугах)	We would like to inform you that… It's main features/advantages/capabilities are…
Предоставление дополнительной информации рекламного характера	Our whole experience is at your service. We hope you will make use of it.

	We should appreciate the opportunity of showing you how efficiently we can serve you. We are sure that these goods will meet your requirements, and look forward to your first order. Our services are at your disposal. You will be interested to know that we have just introduced our new… We can offer you a special price (discount) if you place your order before… We assure you of our commitment to produce the highest quality services to our customers. It is our sincere desire to give you the personal attention and satisfaction
Выражение просьбы об ответе на предложение	Please let us know if you would like to have samples or a demonstration. If you are interested in our products, please let us know as soon as possible Should you require any further information please do not hesitate to telephone me…

Образцы письма-предложения:

Dear Mr. Green, We are pleased to inform you that an updated version of Top Project is now available. To obtain your copy, simply call us and we'll send you, absolutely free, the new version of the program. We also enclose a catalogue with the new range of SunRise machines and the latest software products. There are special offers for all our clients, including a book about budgeting and balancing. To order by phone, call 0 22450 98643

Yours sincerely, Barry Stephens Sales Manager	

Dear Mr. Coop,

We are a leading manufacture of household appliances in England. We are pleased to offer you our new product - Blast Mixer. It can do a hundred jobs: shake cocktails, whip, stir or beat up cream, eggs or cake mixture, make ice-cream, delicious biscuits. In short, it will be a blessing for the whole house.

But you must see for yourself. May we show the "Blast" to you in action? If you sign and post the enclosed card we shall send our representative round and he will explain the advantages of this wonderful machine. A short demonstration will do more than a hundred letters to convince you of the joys it will bring into your life.

Yours faithfully,

Jane White

Sales Manager

Smart house Ltd.

2.2.4 Письмо-запрос

Letter of enquiry

Таблица 11

Структурно-фразовая таблица для письма запроса

Структура	Характерные фразы и выражения
Информация о себе или о своей компании.	We are a software company that ….. Currently we are developing/working at…
Указание источника информации	We have seen your advertisement in… We have heard from your representative… Following my conversation with the representative…

Указание причин обращения	We saw your products demonstrated at the Fair… We are writing to…
Выражение просьбы Запрос информации	Could you please send/inform/give us… I would be grateful if you could…. We require the following information… Please let us know whether/when/how.. I'd like to know whether… I'd like some information about… We are writing to enquire if it would be possible to… We would be glad to receive specifications of your new items, together with your current export price list and detail of trade discounts. We would possibly like to discuss the possibility of …

Образцы письма-запроса:

Dear Sir/Madam,
We are writing to ask you if you can help us with our university project. We are doing survey of the major newspapers in the European Union to find out which computer systems and desktop publishing programs they use.

We would be very grateful if you could tell us which hardware and software you use at El Independiente. Could you also tell us whether you have a Web edition published on the Internet?

Thank you very much.
We look forward to hearing from you.

Yours faithfully,
Katherine Powell

Student representative
Dear Sirs,
We have seen your advertisement in the Metal worker Journal, and would be grateful if you would kindly send us details of your aluminum fittings.
Please quote us for the reply of the items listed on the enclosed enquiry form, giving your prices c.i.f. Southampton. Will you please also indicate delivery time, your terms of payment, and details of discounts for regular purchases and large orders.
Our annual requirements for metal fittings are considerable, and we may be able to place substantial orders with you if your prices are competitive and your deliveries are prompt. We look forward to receiving your quotation. Yours faithfully,
Mr. Brown
Production manager
Metal Inc.

Ответ на письмо - запрос

Таблица 12

Структурно-фразовая таблица для ответа на запрос

Структура	Характерные фразы и выражения
Выражение благодарности за запрос, указание деталей запроса	We are pleased to have your enquiry of… We thank you for your enquiry about… We thank you for your e-mail of 28 July
Предоставление необходимой информации	Here is the information you requested… We are glad to inform you that.. We are enclosing our invoice In reply to your enquiry, we are enclosing Our prices include Unfortunately, the model you have asked for is out of

	production

Образцы ответа на запрос:

Dear Mr. Brown,

We thank you for your letter of 28 June, and are glad to inform you that all the items listed in your enquiry are in stock. We are enclosing a proforma invoice for the aluminum fittings you are interested in. If you wish to place a firm offer, will you please arrange for settlement of the invoice by draft through your bank, and advise us at the same time.

We can guarantee delivery in Melbourne within 3 weeks of receiving your instructions. If you require the goods urgently, we will arrange for them to be sent by air, but this will, of course, entail higher freight charges, We are enclosing details of our terms of payment, and would be happy to discuss discounts with you if you would kindly let us know how large your orders arc likely to be.
We are looking forward to hearing from you, and assure you that your orders will receive our immediate attention.
Yours sincerely,

Ms. BlackSales Manager

Dear Mr. Grant,

In reply to your request for our Catalogue № 135 we enclose a copy herewith, and we hope you may find it useful. You will find an order from inside to assist you in choosing the items you may require.

Best wishes

Ms. Back

Sales Manager

2.2.5 Письмо-жалоба

Letter of complaint

Таблица 13

Структурно-фразовая таблица для письма-жалобы

Структура	Характерные фразы и выражения
Указание цели и предмета жалобы	I'm writing to complain about/complaining

	regarding the…. We wish to place on record the company's extreme displeasure at There seems to be some misunderstanding regarding…
Разъяснение сути жалобы (Не стоит впрямую указывать на виновников. Постарайтесь больше использовать предложения в пассивном залоге)	The problem is… Unfortunately,… The thing is…. But… There may have been a misunderstanding about… We insist that the problems we experienced were due to…
Предложение дальнейших действий	It is necessary to… The mistake must be corrected as soon as possible We would be grateful if you would… We would appreciate it if you would Please send us a refund for… It is our intention to insist that…
Выражение надежды на скорое разрешение проблемы	We look forward to an early settlement of our claim Hope you will sort this problem out asp Please ensure that this sort of problem does not arise again

Образцы письма-жалобы:

Dear Mr. Smith,
I'm complaining regarding the consignment of 14 Olivetti 478 PCs. Order no.3799 which was delivered on 12 May.
It was clearly stated on the order form that these machines should be pre-loaded with the latest version of Windows. Unfortunately, they have all been loaded with Windows 98 version, and they were unable to run a number of programs.
Could you please send one of your representatives to load the machines with the correct version of Windows as soon as possible.
Yours sincerely
George Panting
Operation Manage
Dear Mr. Bright,

It is with great regret that we have to inform you that the material, delivered under Contract № 213457 does not conform to the specification on the basis of which the contract was signed.

By separate mail we have sent you a cutting from this material and one piece from the material of the previous consignment, so that you can compare the two and see the difference.

As a result of this situation sustain heavy losses because we cannot fulfill our contractual obligations to our clients. In this situation we are prepared to retain the goods if you will reduce the price, say, by 40%.

Awaiting your early reply.

We remain sincerely yours,

Mr. Frost

Import manager

Ответ на письмо-жалобу

Таблица 14

Структурно-фразовая таблица для ответа на письмо-жалобу

Структура	Характерные фразы и выражения
Выражение благодарности и ссылка на полученное письмо	Thank you for your letter on 13 May regarding the… Thank you for your letter dated…It was with great regret that we heard
Извинения и объяснение происшедшего	We are sorry to hear/learn about… We were distressed to hear/learn about… We were very sorry to receive your complaint. We greatly regret that you received only… We would like to apologize for the

	problem/inconvenience/trouble we caused… The problem/difficulty appears to have arisen from… The problem arose due to/because of…
Информация о дальнейших действиях	We shall be grateful to you if you will advise us further action you would like our company to take in this matter We'll try to do our best to solve this problem. I will telephone you to make sure that… We'll do everything to put the matter right
Вторичное извинение	Please accept my apologizes

Образец написания ответа на жалобу:

Dear Mr. Panting   Thank you for your letter on 13 May regarding the problems with a consignment that was recently sent to you.   I'm very sorry it had happened. The difficulty appears to have arisen due to a misunderstanding in our ordering department, and the matter is now been put right.   I have asked our Corporate Computing Consultant, Mr. Marley, to call on you on Friday 21 May to ensure that the PCs are correctly loaded.   I will telephone you to check that this meeting is convenient. Please accept our apologizes for the inconvenience that has been caused.   Yours sincerely   Mr. Smith   Sales Manager

Dear Mr. Frost

We have received your teller of 2nd June and thank you for sending us the two samples of cloth. We arc greatly concerned over your disappointment in the quality and complications which may arise in your relationship with your customers.

If you are willing to accept the goods and dispose of the inferior cloth we will send you a credit note for the difference.

We apologize sincerely for the trouble caused to you and we will lake all possible steps to ensure that such a situation will not arise again.

Yours sincerely

Mr. Bright

Sales Manager

2.2.6 Заявка на трудоустройство и резюме
Letter of application and curriculum vitae (resume)

При приеме новых сотрудников большая часть зарубежных компаний требует от кандидатов наличие резюме и сопроводительного письма-заявки на трудоустройство. Помните, что при составлении этих документов необходимо обратить особое внимание на те качества, навыки и компетенции, в которых наибольшим образом заинтересован работодатель.

Таблица 15

Структурно-фразовая таблица для сопроводительного письма-заявки на трудоустройство.

Структура	Характерные фразы и выражения
Указание цели письма и источника получения информации о трудоустройстве.	I wish/am writing to apply for the post of… advertised in ……
Указание текущей должности или статуса на	I am currently a…at…. This month I have graduated from …where I got a

момент написания письма.	qualification in/degree in…
Ссылка на прилагаемое резюме	As you will se from my enclosed CV
Указание квалификации, а также дополнительных навыков и умений, имеющихся на данный момент.	I've got engineer's/teaching qualification I've got Master's degree in Engineering/computing I am familiar with…. I have strong computer skills/ a good command of the English language/ fluent English
Указание предыдущего опыта работы	Prior to taking over my current post I worked as a… I have some experience of…
Указание дополнительных причин выбора этой вакансии	I would like to have more scope for my advancement. I will be able to make a valuable contribution to your company. I have always been interested in…this is one of the main reasons why I am applying for this job.
Просьба о вашем дальнейшем информировании.	Please let me know if there is any further information you require.

Образцы заявки на трудоустройство:

Dear Mr. Bradman, I wish to apply for the post of Systems Programmer, which was advertised in this month' edition of Daily News. I am currently a Systems Programmer at AFC Bank where I have two years' experience of specialized programming. I am familiar with C/Unix, LAN/WAN technology. Prior to taking over my current post, I worked for Data International as a Trainee Systems Programmer, where I was involved in the development of new on-line information systems My experience in the field of information services has given me the necessary technical awareness to be able to make a valuable contribution to your company. Please let me know if there is any further information you require. I look forward to hearing from you. Yours sincerely David Johnson
  Dear Mr. Livingstone, Please accept my resume for the research technician job, or any other position that would be suitable for me. I am confident that my background and skills in research techniques will prove to

be an effective match for your qualifications.

I have had a great deal of laboratory experience in chemistry and biology, both indoors and in the field. In the lab, I have performed chemical reactions and I am currently using microscopes to observe many specimens.

While working for ABCD Research Laboratory, I successfully applied my research skills and worked closely with the samples being studied. I supported the research in completing assigned experiments, and recorded and analyzed massive amounts of data. This experience gave me the opportunity to work closely with a team of researchers, and helped me to understand the importance of good lab practice.

My research experiences have been positive ones due in part to my interpersonal skills. I work well in teams, am reliable and organized, and enthusiastic to learn. I am sure that I will carry over the same enthusiasm and skill in doing research at your institution.

Thank you for your consideration. I look forward to hearing from you.

Sincerely,
Mr. Bright

2.2.7 Написание резюме

Curriculum vitae (resume)

Таблица 15

Структурно-фразовая таблица для резюме.

Структура	Примеры

Personal details: Name:
      Date of birth:
      Marital Status:
      Address:
      Tel:
	David Johnson
	 25 June 1976
	 Single
	 46 London Road, Brighton, BN5 9KL, Great Britain
	 57 493 678

Position applied for:	Systems Programmer
Education and training:	1993.1995 Green Bay High School, Brighton 1996.2000 Aston Technical College, Birmington Bachelor Degree in Computing
Work experience: Period: Company: Post: Responsibilities: Period: Company: Post: Responsibilities:	 Aug. 2000-Sep.2001 Data International Trainee Systems Programmer Assisting in the development of a new online information system Sep. 2001-present AFC Bank Systems Programmer Specialized programming for the financial sector
Other information:	My interests are: mountain biking, skiing Fluent German Clean driving license
Reference:	Mr J H Holloway Data Processing Manager Data International 106 Sidmouth Street London WC34 4 FG

2.2.8 Написание письма-благодарности
Thank you letter writing

В деловых кругах принято официально выражать благодарность в письменной форме. Это является одним из правил делового этикета, которым зарубежные партнеры не должны пренебрегать.

Для выражения благодарности в письменном виде используются следующие выражения:

I'm writing to express my gratitude to you…for …

I am writing to thank you for…

I'd like to thank you for…

Many thanks for…

I especially appreciate…

Your kindness (help, participation) is greatly appreciated

I am grateful for your…

Образцы написания письма-благодарности:

Dear Mr. Hall,

Thank you for taking the time out of your busy schedule to talk to me about the Senior Programmer Analyst position with your company. I appreciate your time and consideration in interviewing me for this position.

After speaking with you and the group, I believe that I would be a perfect candidate for this position, offering the quick learning and adaptability that is needed for a diversified position.

In addition to my enthusiasm for performing well, I would bring the technical and analytical skills necessary to get the job done.

I am very interested in working for you and look forward to hearing from you once the final decisions are made regarding this position.

Please feel free to contact me at anytime if further information is needed. My cell phone number is (555) 111-1111.
Thank you again for your time and consideration.
Sincerely,

Mr. Alexandrovich

Dear Ms. Hastings,

Thank you so much for hiring me for the laboratory assistant position. I appreciate the time you took to interview me, and I am very glad to be working for you.

I look forward to starting my position and, once again, I'd like to thank you for the great opportunity.

Sincerely,
Miss Blindestone

Dear Mrs. Douglas,

I can't express to you enough how much we appreciate the business referrals you send our way. There is nothing better than to have a customer referred to you by someone who holds the kind of respect and admiration that your company has in the community. We are so grateful for the number of customers you have sent to us and want to assure you that we are taking very good care of each one of them.

It has been our privilege to be of service to all those you've referred. Thank you, Ms. Smith, for the vote of confidence you have in us. That is the highest recommendation we could ever receive.

Your kindness is greatly appreciated.

Sincerely,

Mr. Jacobs

PR Manager

Compmaster Inc.

2.2.9 Особенности электронных писем

Электронное письмо, в принципе, является обычным письмом. Его содержание, тон и т.п. зависят от того, кому, зачем и почему его пишут. Но все же деловое электронное письмо немного отличается от традиционного. Оно немного более личное и теплое. Тон электронного письма – нечто среднее между тоном делового письма и телефонным разговором.

"Шапка" электронного письма может быть немного проще. В ней, как правило, присутствуют такие пункты как:

Date:

To: (имя и электронный адрес получателя письма)

From: (имя и электронный адрес отправителя письма)

Subject (тема письма)

Cc: (копии письма)

Стиль электронного делового письма такой же, как у традиционного, но менее формальный. Многие моменты оформления деловых писем упрощены.

Одной из особенностей электронной почты является широкое использование сокращений фраз и выражений. Эти сокращения уже превратились в своеобразный метаязык. Их нужно просто запомнить:

AAMOF	As a matter of fact
AFAIK	As far as I know
ASAP	As soon as possible
BTW	By the way
CU	See you
F2F	Face-to-face
FOAF	Friend of a friend
FYI	For your information
IMO	In my opinion
IOW	In other words
IWBNI	It would be nice if
NRN	No response necessary
R	received
TFS	Thanks for sharing
TIA	Thanks in advance
WRT	With respect to

Образец электронного письма:

Subject: Confirmation of our meeting as discussed by phone

Hello Jack,

I'm writing regarding our phone call earlier this morning. It was a very useful discussion and I am much clearer now about your objectives. At the end of the call you suggested a time and place for our next meeting, the lobby of the International Hotel in Barcelona at 2.00 pm on 7th February. I believe you will be staying at the hotel at that time. I said that I would email you to confirm the meeting. Well, for me the time and place is very good - I am free all afternoon. I look forward to seeing you there at that time and hope that in the evening you can be my guest for dinner at a good restaurant in Barcelona.

Regards

James

Упражнения:

Упражнение 2.1 *Восстановите логический порядок абзацев в следующих письмах:*

2.1.1

Dear Mr. Downtown,

a) By paying us within 10 days of delivery, you can actually save 24% of the face amount of your average monthly bill over the period of a year. There are, in fact, firms who prefer to borrow funds to take advantage of this discount.
Of course, you know what is best for your own business, but we want to be sure that you are aware of this savings factor.

b) In the past twelve months you have purchased a considerable
amount of merchandise from us, which pleases us greatly.

c) We would like to take this opportunity to thank you for the orders you have given to us over this past year and the promptness with which you have always paid. It is a pleasure doing business with your firm.

d) Since you have never taken advantage of the 2% discount we offer for early payment, we thought that you might be unaware of just how substantial your savings could be. The savings on last year's purchases alone would have amounted to 500 $.

Yours sincerely

Miss Browm

Sales Manager

2.1.2

Gentlemen,

a) Please accept our apology for this delay and thank you for your understanding.

b) We did want to inform you of this delay as soon we were advised in order to give you as much time as possible to make alternate arrangements, if necessary. We can assure you, however, that if your order remains in force we will expedite delivery to you as soon as we have received the merchandise.

c) I am writing to inform you that we are unable to make delivery on the above referenced purchase order on the date indicated.

d) We should have our merchandise ready to ship within 10 days of the original delivery date and we hope that you can hold off until that time.

Yours faithfully

Mark Jam

Export Manager

2.1.3

Dear Mr. Grand,

a) We developed this software to provide educators with a comprehensive and effective means of transmitting information and to help modernize educational

methods. That children are highly receptive and stimulated to learn through the usage of audio-visual material, is widely accepted by educators throughout the field.

b) Once again, thank you for your interest in our product.

c) Thank you for your inquiry about our new software I am
enclosing our catalog for your review.

d) After you have reviewed our material, we would appreciate hearing your comments, and we will look forward to answering any questions you have about our product.

Best wishes
James Garning

Упражнение 2. *Вставьте пропущенные слова в текст следующих писем.*

2.2.1

concerns	for	apology	to	which	in order to
	General Director	cancellation	about	does not	

Dear Mr. Hastings,

This is _ acknowledge receipt of your letter of 24th March in _ you set forth your reasons _ cancelling your purchase order # 246979

I am very sorry _the misunderstanding that led to this _ and have taken the matter up with management _ ensure that a problem of this nature _occur again.

one of our valued customers, your satisfaction is one of our primary. Please accept our_.

Yours sincerely

Mr. Black

_____

2.2.2

upon   later   from   sign   regarding   release   abide   to…
confirm   sincerely   merchandise

Dear Ms. Cinzia,

This letter will serve to _our agreement _your purchase of 100 laptops from our company.

You agree to _by our printed terms and conditions, and you additionally agree to pay for the _ in three equal payments. The first payment shall be sent so as to be received by my office not _than April 21st

The second payment shall be received not later than thirty days later, and the third payment shall be received not later than thirty days after the second payment. In no event shall payment be received later than   July 30 th.

Please _a copy of this letter and return it to me.

_receipt of your confirmation of our agreement, I shall _shipment of the aforementioned merchandise.

Look forward _ hearing _ you

Yours _

Ms. Heap

Finance Manager

2.2.3

items	in advance	enclosed	pleased	event
quantities	terms	advantage	temporary	

Dear Ms. Davon,

I am _ to inform you that, for a limited period of time, we are reducing prices on certain _ in our catalog. Take a moment to review the _ catalog. I have circled in red ink the items that are _ reduced.

Please take _ of these prices. If you wish to order large_, or stagger shipments, give me a call and we will try to work out mutually acceptable_ and conditions.

In any _, get your order in, as these prices are only in effect until March 30th

Thank you _ for your order.

Best regards

Jane

Sales Representative

2.2.4

worthwhile	previous	satisfaction	arrange	candidate
asset	experience	option	should	beneficial

Dear Ms. Paulson,

My unique mix of _ work experience and my status as a Stetson University business student in my junior year studying marketing, make me an ideal _ for a summer internship with Universal Orlando

My _ in sales and customer relationship management, combined with my courses in marketing, have convinced me that hospitality marketing is a _ option I would like to explore.

More importantly, an internship with Universal Orlando would be mutually _. Your company has an excellent reputation for customer_ , and I know that the combination

of my experience, education, and motivation to excel will make me an _ to your marketing department.

I am sure that it would be _ for us to meet. I will contact you within a week to _ a meeting. _ you have any questions before that time, you may reach me via phone (386-555-2922) or via email (christina@stetson.edu).

Thank you for your time and consideration.

Sincerely,
Miss Bone

Часть III

Банк заданий

3.1 Академическое письмо:

        3.1.1 Эссе

3.1.2 Статьи

3.1.3 Интерпретация графической информации

3.1.4 Отчеты

3.1.5 Аннотации

3.2 Деловая корреспонденция:

3.2.1 Письма-запросы

3.2.2 Письма-предложения

3.2.3 Письма-жалобы

3.2.4 Письма-благодарности

3.2.5 Заявки на трудоустройство, резюме

3.2.6 Профессионально-направленные задания с адаптацией повышенного уровня сложности

3.1.1 Эссе

1. Do you believe the use of Internet in education is a good idea? Use your own opinions, knowledge and experience to support your arguments in favor or against this idea.

2. Many psychologists say that it is very bad for children to play computer games. To what extent do you agree or disagree with this statement? Use your own ideas and experience to support your arguments with examples and relevant advice.

3. What makes a good engineer (manager)? Is it only a university degree or some other characteristics? Analyze this issue from different points of view.

4. Telecommunication technologies in modern offices. Is it luxury or necessity? Use your own ideas, knowledge and experience to support your arguments.

5. Globalization is getting wider. What can be its outcomes for your country in the nearest future? Analyze this issue from different points of view.

6. International cooperation. Is it good or evil for Russian science? Consider both pros and cons of this phenomenon.

7. For a long period of time Russia has been the leading country in space exploration. What do you think of the present situation in this sphere?

8. There exist various types of energy used to generate power (biomass energy, fossil fuels, nuclear power, solar power, tide and wave power, wind power, etc.). Which of these types is of prior importance? Support your idea by comparing this type of energy with the other ones.

9. In the XXI century the mankind has faced the global threat of ecological problems What are the top priority problems that our government should consider first of all? Support your arguments with some facts and relevant advice.

10. Mobile phones have changed our lifestyle forever. Discuss the pros and cons of owning a mobile phone.

11. In the last decade Internet has become one all-absorbing interest for many people. Some books may never be published and can be available only in the form of public databases. There is an opinion that in a few years everything will be in the Internet and libraries, cinemas, theatres and museums will no longer be needed. Do you agree with this statement?

12. Read a passage from the article by Lorean Graham "Science in the new Russia". Write a short essay, expressing your personal opinion about the current situation in the Russian science.

Today, it is clear that Russian science is not dead. And although the scientific enterprise is now less than half the size it was in Soviet times, it will continue to be a vital part of the Russian economy and of Russian culture. The country's economy has begun to recover in the past few years, and starting in 1999 the Russian government has stabilized and even slightly increased its science budget. Although it is impossible to predict the future, the worst period for Russian science is probably over. However, the country's science is emerging from its crisis under heavy pressure, much of it from abroad, to change the way it is managed and financed.

13. Read a passage about aviation security measures taken in the USA.

Write an essay, considering aviation security in Russia and recommending some measures, which can be adopted by our country in order to improve the situation in this sphere.

Aviation security moves in and out of public consciousness in the United States, depending on how recently there has been a hijacking or terrorist incident in this part of the world. The threat, however, remains. Defending commercial aviation from terrorists is inherently difficult because of the multiple points of access to air transportation, including checked and carry-on baggage; airport workers such as caterers, baggage handlers, and construction workers; and attack from weapons such as hand-held missiles.

Measures are in place to prevent terrorists from using these and other points of access, but none of the measures is foolproof. More steps could be taken in each of these areas, but they come with higher costs, added inconvenience to passengers, and more delays to the system. Technological approaches to the detection of explosives and weapons hold promise in some areas, but they are expensive and can slow the throughput of the system. Attempting to speed these processes tends to increase the rate of false positives (when the detector finds something that appears to be a threat but turns out not to be), which in turn adds to delays. Moreover, some of the technological approaches, such as

> x-rays that can see through clothing to detect weapons, explosives, and other contraband raise privacy issues. Of perhaps even greater long-run concern is the safety of airports themselves, which are also vulnerable to terrorists. We know of no easy or inexpensive solutions to the potential threat posed by terrorists. But it would be a mistake to downplay terrorist threats to domestic aviation simply because domestic aviation hasn't yet been a victim.

14. Give your opinion on the following statement: It is a good thing for engineering students to have a part-time job in industry or in business.

15. Give your opinion on the following statement: It is necessary for a young specialist to have a command of a foreign language.

16. Give your opinion to the following question: What subjects are necessary to include into the curriculum for your speciality? Explain why.

17. Give your opinion to the following question: Why did you choose to enter the university you study at?

18. Give your opinion on the following statement: The development of the country depends on technologies it has.

19. Give your opinion on the following statement: The new technologies that are being developed must be connected with the traditional ones.

20. Give your opinion on the following statement: It is the growth of industrialization that causes environmental problems

21. Give your opinion on the following statement: To become a global manager it is necessary to understand cross-cultural differences.

22. Give your opinion on the following statement: The technological progress of any country is in hands of its scientists. What possible conclusions can be drawn from this statement?

3.1.2 Статьи

23. Write an article giving an overview of the current applications of robots in modern industry and life. The title of the article – "XXI century is the century of robots".

24. The president of the association of computer software manufactures has asked you to write an article for a general magazine informing the public about the losses of software manufactures caused by pirates and calling upon the public not to buy pirated products.

25. The editor of a famous computer magazine has asked you to write an article describing the hackers' tricks and warning the computer users about the possible dangers connected with hackers' activities. The title of the article – " Watch out for hackers!"

26. William Schneider begins his article " A 21st-Century Role for Nuclear Weapons" with the following passage:

> The proliferation of weapons of mass destruction (WMD) has become a metaphor for 21st-century security concerns. Although nuclear weapons have not been used since the end of World War II, their influence on international security affairs is pervasive, and possession of WMD remains an important divide in international politics today.

Write main body and the conclusion for this article

27. Read the article about possible applications of radiation in the field of medicine.

> Perhaps the most significant success story over the past half-century in harnessing radiation to serve modern humanity is found in the field of medicine.
>
> Sterilizing medical equipment. Radiation in high enough doses can kill microorganisms, so gamma radiation is used to sterilize dressings, surgical

gloves, bandages, and other equipment routinely used during medical procedures.

New drug testing. Substantial testing must be done before new drugs are approved. This includes detecting how a product attacks a targeted disease and any possible side effects. Radioisotopes, because of their unique imaging characteristics (via particle emission), are ideally suited to deal with such questions--including material uptake, metabolism, distribution, and elimination of unwanted residues from the body.

Diagnostic techniques. The earliest use of radiation in the medical field occurred in World War I, when portable x-rays helped field surgeons save many lives. Today, dental x-rays, chest x-rays, mammograms, and numerous other tests are used routinely in the medical and dental professions.

Therapeutic approaches. Until recently, the use of radiation to actually cure diseases was rather limited. One of the first therapeutic applications involved using iodine-131 (I131) to cure thyroid cancer. Since the thyroid has a special affinity for iodine, it is a relatively simple and straightforward matter to have a patient drink a carefully determined amount of I131 in a chemically palatable form of solution. The I131 then preferentially lodges in the thyroid gland, and the beta-emitting properties of this radioisotope subsequently target and destroy the thyroid malignancy. Since I131 has a half-life of eight days, it effectively disappears within a few weeks. Radiation is now used widely in the treatment of other cancers as well.
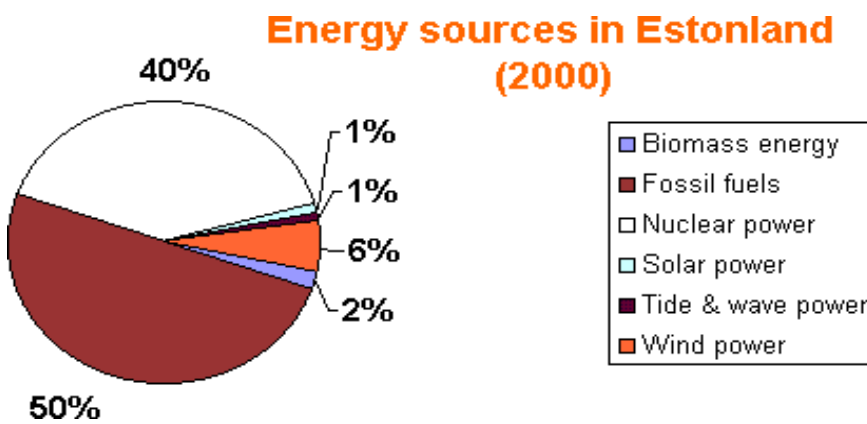
Extend the article and outline the use of radiation in one of the following spheres:

- agriculture (crop production, improving animal health, food processing);
- industry (process control and plant diagnostics, materials development, materials testing   and inspection);
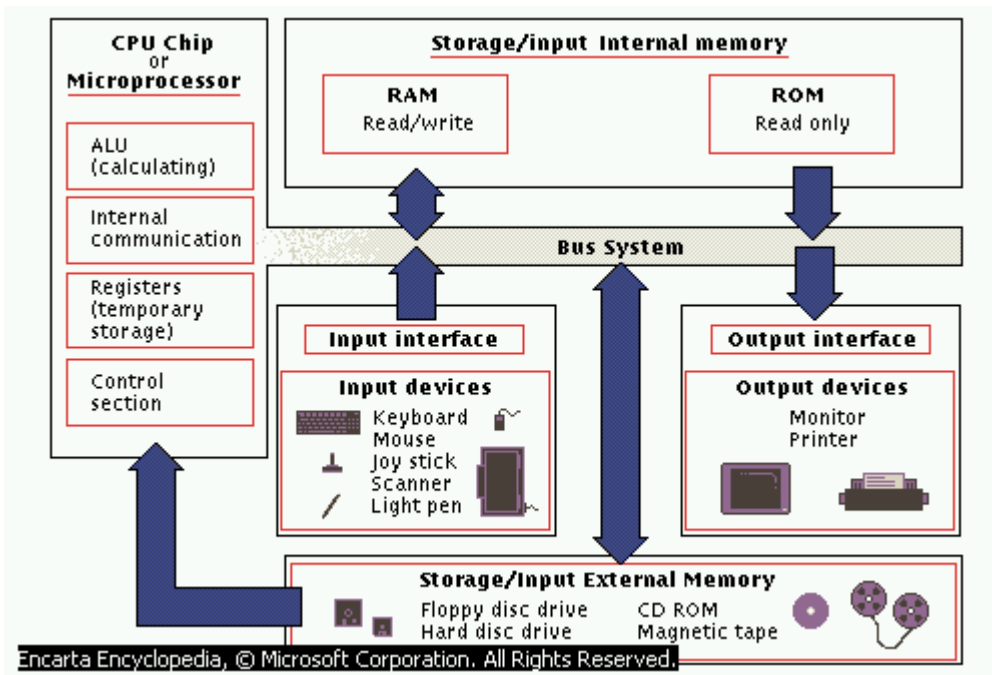-energy;

-public safety;

-space exploration.

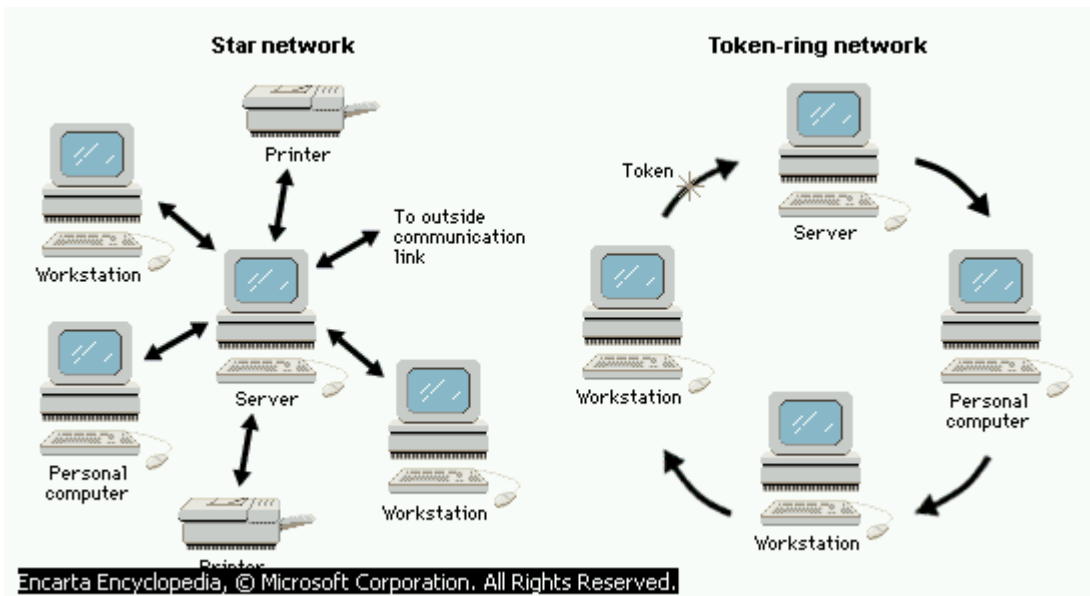### 3.1.3 Интерпретация графической информации

28. The graphs below indicate the types of energy that were used to generate power for Estonland in 2000. Describe the information in the graph.
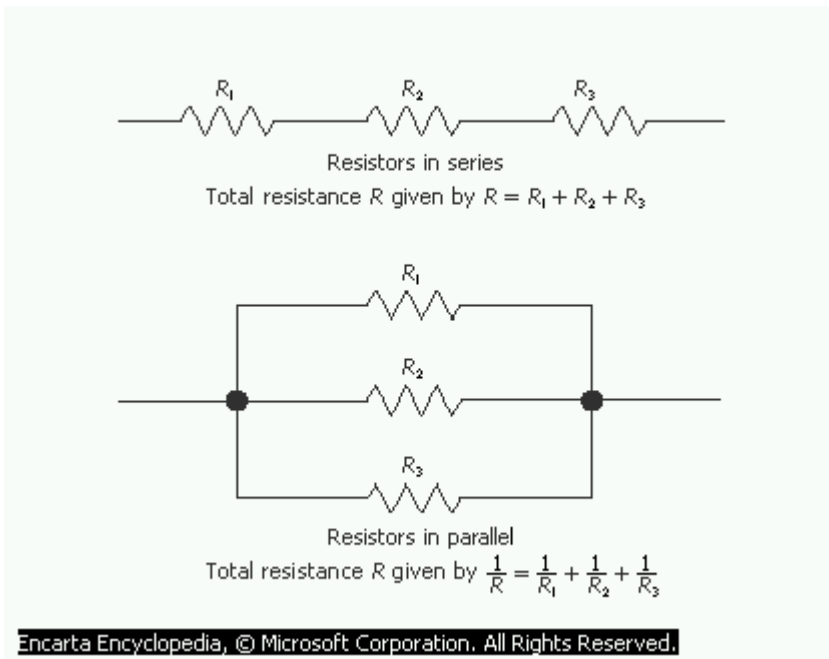

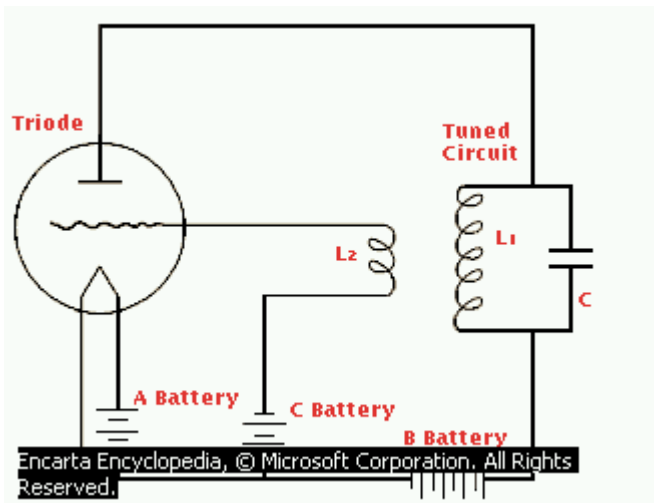29. Describe a diagram showing a typical computer system.

30. Compare the star network and token-ring network configurations shown in the diagrams below.
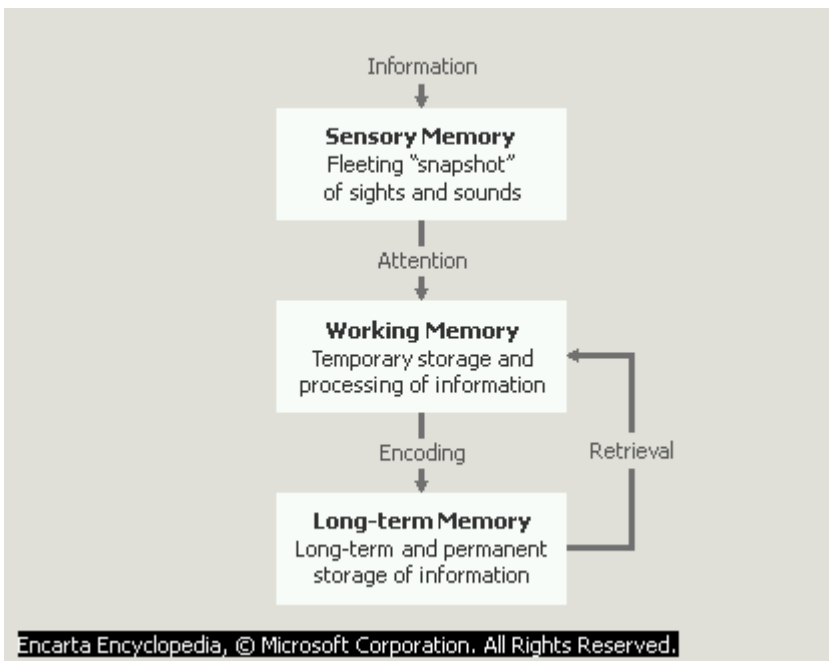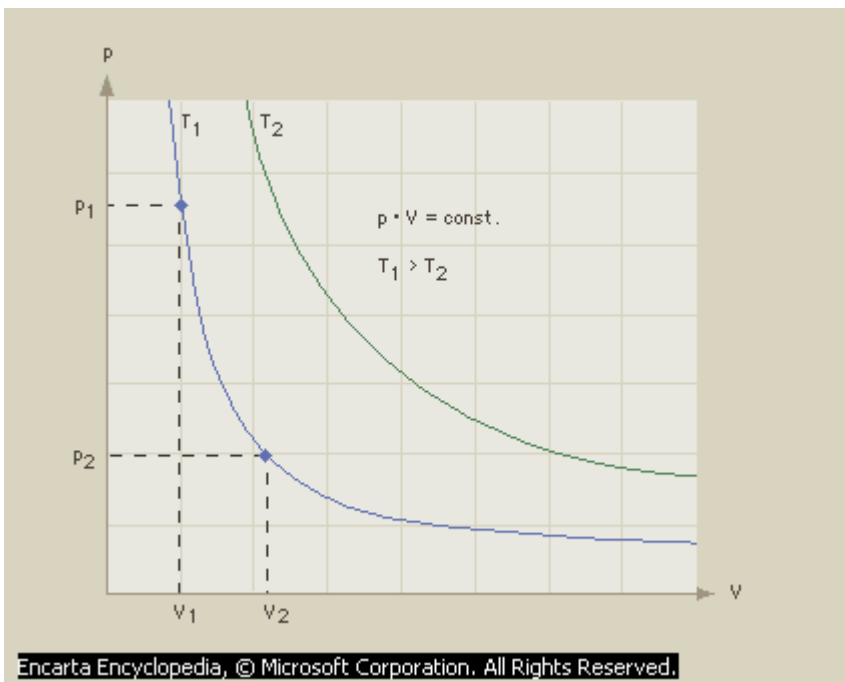
31. Compare the two types of circuits given below.

Resistors in series
Total resistance R given by $R = R_1 + R_2 + R_3$

Resistors in parallel
Total resistance R given by $\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}$

32. Describe the diagram showing simplified schematic diagram of an oscillator circuit.

Triode

Tuned Circuit

L_1

L_2

C

A Battery

C Battery

B Battery

33. Describe the diagram showing the information-processing model of human memory.

Encarta Encyclopedia, © Microsoft Corporation. All Rights Reserved.

34. Describe the graph showing Boyle's Law

$$p \cdot V = const.$$

$$T_1 > T_2$$

Encarta Encyclopedia, © Microsoft Corporation. All Rights Reserved.

3.1.4 Отчеты

35. You have been given a task to conduct a survey among your group mates in order to learn their opinion on the following question: "Which branch of engineering has got the most prospects in your country". Write a report showing the results of your survey.

36. You have been given a task to conduct a survey among your group mates in order to learn their opinion on the following question: "Which disciplines in your curriculum should be obligatory and which ones should be optional". Write a report showing the results of your survey.

37. You have been given a task to conduct a survey among your group mates in order to learn their opinion on the following question: "What Russian inventor made the greatest contribution into the development of the Russian science". Write a report showing the results of your survey.

38. Your home assignment was to find out some information about different ways of using laser technology. Write a report showing the results of your study.

39. Your home assignment was to find out some information about different ways of using nuclear technology. Write a report showing the results of your study.

40. You are a market researcher. You have been given a task to interview different office workers and to find out what communication technologies they find most useful for their work. Write a report showing the results of your survey.

41. You are a market research specialist. You have been asked to conduct a market survey for the American computer trade company, which wants to open its affiliate in your town. You have to find out: 1. How many people in your town use computers; 2. The ways computers are used by people of different backgrounds and professions. 3. The most popular computer software and hardware.
Make your own questionnaires (5-7questions), send letters to some people with the request to fill in the questionnaires. Write a report, describing the results of your work and giving your recommendations concerning the potential customers for this company.

42. Read the article below and write an abstract to it.

Semiconductors

Semiconductor, solid or liquid material, able to conduct electricity at room temperature more readily than an insulator, but less easily than a metal. Electrical conductivity, which is the ability to conduct electrical current under the application of a voltage, has one of the widest ranges of values of any physical property of matter. Such metals as copper, silver, and aluminum are excellent conductors, but such insulators as diamond and glass are very poor conductors (see Conductor, electrical; Insulation; Metals). At low temperatures, pure semiconductors behave like insulators. Under higher temperatures or light or with the addition of impurities, however, the conductivity of semiconductors can be increased dramatically, reaching levels that may approach those of metals. The physical properties of semiconductors are studied in solid-state physics. The common semiconductors include chemical elements and compounds such as silicon, germanium; selenium, gallium arsenide, zinc selenide, and lead telluride. The increase in conductivity with temperature, light, or impurities arises from an increase in the number of conduction electrons, which are the carriers of the electrical current See Electricity; Electron. In a pure, or intrinsic, semiconductor such as silicon, the valence electrons, or outer electrons, of an atom are paired and shared between atoms to make a covalent bond that holds the crystal together See Chemical Reaction; see Crystal). These valence electrons are not free to carry electrical current. To produce conduction electrons, temperature or light is used to excite the valence electrons out of their bonds, leaving them free to conduct current. Deficiencies, or "holes," are left behind that contribute to the flow of electricity. (These holes are said to be carriers of positive electricity.) This is the physical origin of the increase in the electrical conductivity of semiconductors with temperature. The energy required to excite the electron and hole is called the energy gap.

Another method to produce free carriers of electricity is to add impurities to, or to "dope," the semiconductor. The difference in the number of valence electrons between the doping material, or dopant (either donors or acceptors of electrons), and host gives rise to negative (n-type) or positive (p-type) carriers of electricity. This concept is illustrated in the accompanying diagram of a doped silicon (Si) crystal. Each silicon atom has four valence electrons (represented by dots); two are required to form a covalent bond. In n- type silicon, atoms such as phosphorus (P) with five valence electrons replace some silicon and provide extra negative electrons. In p-type silicon, atoms with three valence electrons such as aluminum (Al) lead to a deficiency of electrons, or to holes, which act as positive electrons. The extra electrons or holes can conduct electricity.

When p-type and n-type semiconductor regions are adjacent to each other, they form a semiconductor diode, and the region of contact is called a p-n junction. (A diode is a two-terminal device that has a high resistance to electric current in one direction but a low resistance in the other direction.) The conductance properties of the p-n junction depend on the direction of the voltage, which can, in turn, be used to control the electrical nature of the device. Series of such junctions are used to make transistors and other semiconductor devices such as solar cells, p-n junction lasers, rectifiers, and many others.

Semiconductor devices have many varied applications in electrical engineering. Recent engineering developments have yielded small semiconductor chips containing hundreds of thousands of transistors. These chips have made possible great miniaturization of electronic devices. More efficient use of such chips has been developed through what is called complementary metal-oxide semiconductor circuitry, or CMOS, which consists of pairs of p- and n-channel transistors controlled by a single circuit. In addition, extremely small devices are being made using the technique of molecular-beam epitaxy.

43. Read the article below and write an abstract to it. Give the article a heading.

Scientists have taken what they say is a big step towards an intrinsically secure computer network which banks and other institutions could use to transmit data without risk of hacking.

Toshiba Research Europe is one of several laboratories around the world racing to commercialise quantum cryptography, a technology that uses quantum mechanics to generate unbreakable codes. The Cambridge-based company says it has produced the first system robust enough to run uninterruptedly for long periods without human intervention.

The Toshiba researchers have tested the system with MCI, the international telecommunications company, and plan next year to carry out trials with financial institutions in London.

Secure digital communication uses long prime numbers as keys to encode data at one end and decode at the other. Inquantum cryptography, individual photons - light particles - transmit the secret keys down optical fibres. Each photon carries a digital bit of information, depending on its polarisation. To outwit hackers, the keys are changed many times a second.

The extreme delicacy of these quantum bits is both the strength and weakness of quantum cryptography. On the positive side, a hacker cannot eavesdrop on the data transmission without changing it and alerting sender and receiver to the breach of security. But the system is easily disturbed by tiny fluctuations such as temperature changes in the transmission apparatus or movements in the optical fibres.

Previous quantum cryptography transmissions have lasted only for minutes and required continual adjustment by experts, says Andrew Shields, head of Toshiba's quantum information group. His laboratory managed to extend the running time to a week's "entirely automated and uninterrupted session".

The Cambridge researchers stabilised the system and reduced the error rate by sending a bright "guardian pulse" of light down the fibres immediately after each information-carrying photon.

Mr Shields said: "The technology is now sufficiently mature to be used in real-world situations and we are currently discussing applications with interested parties. In the first instance we expect quantum cryptography to be used in companies' private networks - for example, to provide secure traffic in a link between two sites within a metropolitan area."

Besides Japanese-owned Toshiba, large electronics companies competing to commercialise quantum cryptography include NEC of Japan and Hewlett-Packard of the US. There are also two start-ups, Magiq Technologies of the US and ID Quantique of Switzerland, with first generation quantum cryptography products on the market, although sales have not been large.

44. Read the main body of the research article (abstract, conclusions, acknowledgement and references are omitted due to the space constraint) and write an abstract to it.

Data Placement for Multi-user Interactive DTV
By Raju Rangaswami, Edward Chang, Chen Li and Milton Chen

1 Introduction

To support interactive TV, we have proposed a receiver-based architecture [2, 4]. A receiver (a digital VCR or set-top box) in this architecture is equipped with a large disk. Using this, a viewer can pause a live program to take a break from viewing while the arriving broadcast stream continues to be written to the local disk. The viewer can resume watching the program after the pause with a delay, can replay or can fast-forward the program to get back in "sync" with the broadcast stream.

In this paper, we extend this architecture to support multiple interactive streams on one receiver. With the multi-streamcapability, students in a virtual classroom or at a library can watch a live lecture at their own pace via one shared receiver. A family can use one receiver as the stream server at home to support interactivity at multiple playback devices. On the one hand, the receiver acts as a client for broadcasters (or servers) to enable interactivity. On the other hand, it caches streams for servicing a number of end-devices to amortize cost. We believe that this architecture is attractive because it is more feasible to deploy than traditional video-on-demand architectures, and it is more cost-effective than the single-user digital-VCR model.

We discuss this further in section 2.

Designing such a client/server dual system to support interactivity, however, is a non-trivial task. First, the receiver must write broadcast signals to its disk as soon as possible to minimize memory use for caching streams. Second, the receiver must read data from the disk into main memory before the decoder runs out of data. In addition, when simultaneous fastscans are requested, the reads can happen at very high rates. The system must ensure that all IOs meet their deadlines. We are interested in designing a system that satisfies all the above requirements at the minimum cost.

In this study we show that designing such a receiver efficiently requires consideration of at least three design parameters: IO resolution, disk latency, and storage cost (both memory and disk cost). Since the improvement on one performance factor can often lead to the degradation of the others, tradeoffs between these design parameters must be carefully considered. We propose and experiment with three data placement policies for supporting multiple simultaneous interactive streams. We analyze these policies' optimization objectives and quantify their memory and disk use. Our experimental results show that all our proposed policies use much less memory than a naive sequential placement policy.

2 Related Work

According to a recent survey by Redherring [1], both video on demand (VOD) and single-user digital-VCR devices have not generated much real interest. VOD suffers

from bandwidth limitations and quality of service while personal VCRs have had limited acceptance due to high cost. However, interactive streaming video has gained increasing interest recently [3, 11] due to bandwidth explosion. In this study, we propose an architecture that plays a client/server dual role to enable interactivity for multiple end-users economically. Several schemes have been proposed for supporting interactivity. These schemes can be divided into two approaches: 1) using separate fast-scan streams [6, 11, 12, 13], and 2) skipping frames in the regular stream [7]. The first approach may not be used in the broadcast scenario since a program is broadcast at one single rate. The frame-skipping approach can cause low IO-resolution and consequently low system throughput if not designed carefully. (We discuss this problem in detail in the next section.) The study of [5] proposes a client-side approach that re-encodes frames during normal playback and saves them for replay. This approach can be CPU-intensive since most compression schemes are encoding-side heavy and hence may hinder a CPU from decoding more streams.

3 Data Placement

Now, we propose our data placement schemes to support fastscan operations for multiple streams. Without loss of generality, we can assume that an MPEG1 stream consists of m framesequences; each sequence has δ frames on average, and is led by an I frame and followed by a number of P and B frames. To support a K-times speedup fast-scan, the receiver displays one out of every K frames. To allow K to be any positive einteger, however, the receiver can suffer from high IO, memory and CPU overhead. This is because a frame that is to be displayed may depend on some frames that are to be skipped. The receiver may have to end up reading, staging in main memory, and decoding much more frames than it displays. To avoid processing the frames that are to be skipped, we do not involve any B frame in a fasts can and it plays back a P frame only if the P frame's dependent I frame also involves in the fast-scan. This restriction will not support fast-scan of every speedup but a few, say five, selected speeds like in a DVD player. A key assumption that we make in designing our data organization schemes is that a fast-scan stream needs to be displayed at a lower rate so that the viewer can comprehend and react in time to the content. A

typical DVD player plays a fast-scan stream at 3 to 8 fps (frames per second), instead of 24 to 30 fps, the regular playback speed.

To improve IO resolution, we do not want to read in frames that are not involved in a fast-scan. We propose three placement schemes that separate a video into groups to improve IO resolution. However, separating frames into more than one file incurs additional IO overhead for writes. In addition, we might want to replicate data for improving IO resolution and reducing disk latency. We thus need to design the system carefully to manage the tradeoffs between the following design goals:

1. Improving IO resolution,

2. Reducing disk latency, and

3. Minimizing storage (memory and disk) cost.

We now propose three data placement schemes, each of

which is designed to optimize on a subset of the design parameters.

3.1 Round-Robin (RR)

The round-robin scheme is a simple method to improve IO resolution. Let the I frames be numbered as $I_1, I_2, I_3, \ldots, I_m$. This placement scheme stores P and B frames in a separate file and distributes I frames among κ I-files, $F_1, F_2, \ldots, F_\kappa$, in the following round-robin manner:

$$F_i = \{I_{i+n \times \kappa} \mid n = 0, 1, 2, 3, \ldots, (m-1)\}$$

How this scheme works depends on the requested speedup (K) of the fast-scan. Suppose $\delta = 9$ and $\kappa = 3$. A $K = 3$-times speedup fast-scan reads only P frames from the PB-file and all the I frames from the κ I-files. A faster fast-scan (e.g., K = 54 or 81) requires reading only one I-file, but at a faster pace by skipping some I frames, which leads to low IO resolution. We could increase κ to improve IO resolution, but increasing κ increases disk latency for preparing I-files and for supporting lower speedup fastscans. To maintain good IO resolution without aggravating disk latency, we propose the TBT schemes next.

3.2 Truncated-Binary-Tree (TBT)

In the TBT approach, we attempt to provide good IO resolution at all fast-scan speeds while maintaining reasonable disk latency. In this scheme, the P frames are stored in a separate P-file and the B frames are stored in a B-file. To provide good IO resolution, we organize I frames into a truncated binary tree structure so that only wanted frames are read. An example TBT tree is presented in Figure 1. A normal playback requires retrieval of frames from the entire tree by performing an in order traversal. For fast-scans, different tree levels are retrieved depending on the requested speed. The higher the speed, the higher are the tree-levels that the fast-scan operation accesses. For example, a 3δ-times speedup fast-scan accesses the I frames at levels two and three in the tree, and a 6δ-times fast-scan reads I frames at level three only.
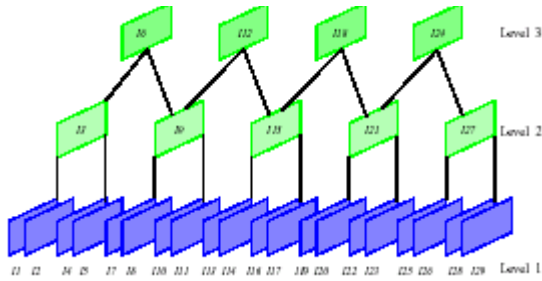

Figure 1: The Truncated Binary Tree Formation. Formally, the TBT scheme distributes I frames among κ I-files, $F_1, F_2, \ldots, F_\kappa$, in the following manner:

$$F_1 = \{I_k \mid 1 \le k \le m \cap I_k \notin \{F_2 \cup F_3 \cup F_4 \ldots \cup F_\kappa\}\}$$
$$F_i = \{I_{n \times \alpha \times \beta^{-2}} \mid n \in \{1, 2, 3, \ldots\} \cap$$
$$I_{n \times \alpha \times \beta^{-2}} \notin \{F_{i+1} \cup F_{i+2} \ldots \cup F_\kappa\}\}, for\ 2 \le i \le \kappa. \quad (2)$$

where m is the total number of I frames in the stream, and α and β are parameters that are tunable to provide for different fast-scan speed requirements.

3.3 Replicated Truncated-Binary-Tree (RTBT)

Although the TBT scheme enjoys improved IO resolution, its disk latency can be high due to the need to read data from more than one file. We now introduce a replication scheme that trades disk storage for reducing disk latency. Again, to achieve good IO resolution, we use the same I frame distribution method as the TBT scheme. In addition, we replicate I frames at higher levels of the tree in all files at lower levels.

The P-file is now changed to contain all the I frames also whereas the B-file contains all the I frames as well as the P frames. Formally, the I frames in the I-files are changed as follows:

$$F_1 = \{I_k \mid 1 \leq k \leq m\}$$
$$F_i = \{I_{n \times \alpha \times \beta^{i-2}} \mid n \in \{1, 2, 3 \ldots\}\}, \text{ for } 2 \leq i \leq \kappa.$$

The advantage of this scheme is that we have one sequential file for supporting each fast-scan speed and hence can achieve 100% IO resolution and minimum disk latency at the same time. During normal playback, for instance, only file F1 (plus the PB-file) is read. During fast-scans, only one I-file is read. Improving IO resolution reduces memory use. But replicating data on disk increases disk storage cost and increases data transfer overhead to replicate data in multiple I-files.The three schemes have distinct advantages and disadvantages. Table 1 summarizes the pros (with positive signs) and cons (with negative signs) of the schemes discussed in this section. In the next section, we analyze these pros and cons quantitatively.

Scheme	IO Resolution	Disk Latency	Disk Cost
Sequential	−	+	+
RR	+	−	+
TBT	++	−	+
RTBT	++	+	−

Table 1: Scheme Summary

4 Evaluation

Parameter Description

Parameter	Description
$\mathcal{N}_w$	Number of broadcast channels (write streams)
$\mathcal{N}_r$	Number of interactive request (read streams)
ρ	Ratio of write requests to read requests
f	Fraction of read streams that are fast-scans
$\mathcal{TR}$	Minimum disk data transfer rate
$\gamma(d)$	Worst-case latency function to seek d cylinders
$\mathcal{DR}$	Average display rate of MPEG stream
$\mathcal{DR}_f$	Average display rate of a fastscan stream
N	Throughput of the disk (number of requests served)
α, β	Adaptive Tree parameters
κ	Number of exclusive I-frame substreams
ω_w	Number of files to be written to for one stream
ω_{rn}	Number of files to be read for normal stream
ω_{rf}	Number of files to be read for fastscan stream
η	Space overhead
Φ	IO resolution

Table 2: System Parameters.

As we have discussed, three factors affect the performance of fast-scans: 1) IO resolution, 2) disk latency and 3) storage overhead. In this section, we evaluate our schemes with respect to these factors. The system parameters are described in table 2. The minimum amount of memory required to support

$\mathcal{N} = \mathcal{N}_r + \mathcal{N}_w$ simultaneous streams is given by[2]:

$$\mathcal{M}_{min} = \frac{2 \cdot \mathcal{DR} \cdot \mathcal{N}_r^2 \cdot \mathcal{TR} \cdot \gamma(d) \cdot X \cdot Y}{\mathcal{TR} - \left[(\rho\eta + (1-f) + \frac{f\mathcal{DR}_f}{\Phi\mathcal{DR}}) \cdot \mathcal{N}_r \cdot \mathcal{DR}\right]}$$

where,

$$X = \left[\rho\omega_w + (1-f)\omega_{rn} + f\omega_{rf}\right], Y = \left[\rho + (1-f) + f\frac{\mathcal{DR}_f}{\mathcal{DR}}\right]$$

Parameter Name	Value
Disk Capacity	26 GBytes
Number of cylinders, CYL	50,298
Min. Transfer Rate $\mathcal{TR}$	130 Mbps
Rotational Speed (RPM)	5,400
Full Rotational Latency Time	11.2 ms
Min. Seek Time	2.0 ms
Average Seek Time	8.9 ms
Max. Seek Time	18 ms

Figure 2: Quantum Fireball Lct Disk Parameters

Figure 2 lists the parameters for the Quantum Fireball disk that we use to study and compare our data placement schemes.

In addition, we assume that the peak data consumption and input rates are DR = 6:4 Mbps (the standard DTV bitrate). We also assume that fast-scan streams are played at

5 fps (DRf) so that the viewer can comprehend and react in time to the content. For computing the seek overhead we follow closely the model developed in [8, 10], which has been proven to be asymptotically close to the real disks. Note that although a different set of disk parameters can lead to different absolute performance values, the relative performance between schemes remain the same.

We do not present all the details of our experiments here due to space constraint. The experimental results are summarized in observation checklist.

5. Observations

From the experimental results we make four observations:

- A non-optimized placement scheme (SEQ) incurs huge memory requirement and hence is not desirable.

- For low speedup $(K \leq \kappa \times \delta)$ fast-scans, the RR scheme performs well over a wide range of writes-to-reads ratios.

- For high speedup $(K > \kappa \times \delta)$ fast-scans, the RR scheme suffers from poor IO resolution. The TBT schemes enjoy good IO resolution and achieve higher throughput than the round robin scheme given the same amount of memory.

- When supporting a large number of users, at low writes-toreads ratios, the replicated TBT scheme performs best. 3 This ratio has been more or less constant over recent years

45. Read the summary of a research paper and write an abstract to it.

Analysis of Planar Light Fields From Homogeneous Convex Curved Surfaces Under Distant Illumination

By <u>Ravi Ramamoorthi</u> and <u>Pat Hanrahan</u>

Summary

In this paper, we restrict ourselves to the planar case, assuming all illumination and measurements occur in the same plane. We analyse the resulting light field generated by a convex curved surface. For our analysis, we construct the Fourier transform of both the input lighting and the brdf. We demonstrate that the lighting integral transforms to a simple product of coefficients in Fourier space. Thus, the operation of rendering can be viewed in simple signal processing terms. This Fourier analysis of the structure of the light field leads to a number of interesting observations.

For instance, in general, the brdf can be completely determined in theory, given the input lighting and the complete output radiance function. This can be viewed as a simple problem of filter estimation, estimating the filter (brdf) given the output (radiance) and the signal (lighting). The problem is unsolvable when terms in the Fourier expansion of the lighting are zero, corresponding to the signal having no amplitude for certain modes of the brdf filter. Furthermore, this explains the use of a point light source for image-based brdf measurement---the fourier transform of a delta function is constant and nonzero everywhere. We can also think of this as determining the brdf filter by considering its impulse-response. In practical terms, this theoretical result may have applications in efficiently recovering brdfs under uncontrolled illumination conditions, by considering the Fourier transforms of the brdf and lighting.

A similar result holds for the lighting, viz. we can recover the lighting given the brdf and the output radiance. Similarly as above, this becomes impossible when terms in the Fourier transform of the brdf are zero. The theory allows us to easily derive a closed-form formula for the action of distant illumination on a Lambertian object, an important special case. We will show that inverse lighting from a Lambertian object is in general ill-conditioned, allowing only the lowest-order modes of the lighting to be recovered. This implies that an inverse-lighting approach such as that proposed by Marschner can only recover a very rough notion of the lighting. On the other hand, this result may allow us to efficiently prefilter and render environment maps in

computer graphics, since only a very low frequency representation of the environment need be used.

Our work may have applications in visual perception. We demonstrate that lighting effects can only induce low-frequency variation in the intensity of a Lambertian surface. Therefore, all high-frequency variation is because of texture, and this explains why we can find the texture on surfaces independently of lighting effects. It also indicates that we will find it difficult to distinguish lighting effects from a slowly varying texture.

Finally, we demonstrate that if reciprocity is taken into account, we can, in general, factor the light field into a product of brdf and lighting terms, without knowing either. Besides obvious applications in computer vision and graphics, this accords with our perceptual ability to ascertain the brdf (or degree of shininess) of a surface, independently of the lighting conditions.

Although our contribution is theoretical and restricted to the planar case, the results can be fairly easily generalized to 3D, and we believe the theory has applications in computer vision and graphics, and can lead to practical algorithms for many important applications.

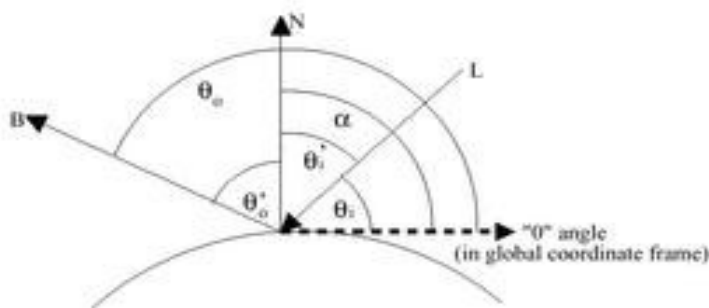The figures on the right summarize some of the main results from the paper.

Figure 1. A diagram showing local and global angles and all the important vectors.

$$B_{p,q} = 2\pi L_p \hat{\rho}_{-p,q}$$

Figure 2. The main result of the paper: a Fourier convolution formula to describe the reflected light field in signal-processing terms as obtained by filtering the illumination using the BRDF.
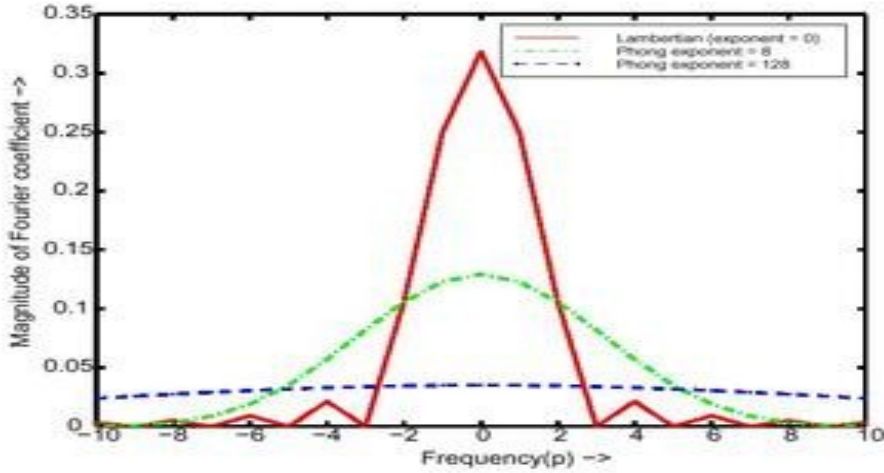

Figure 3. Plot of Fourier coefficients for Phong BRDFs having different exponents. The Fourier coefficients have a gaussian form with the width depending on the exponent.

$$L_0 = 1$$

$$\tilde{\rho}_{0,q} = \frac{\tilde{B}_{0,q}}{2\pi}$$

$$L_p = \frac{\tilde{B}_{p,q}}{2\pi\tilde{\rho}_{-p,q}} = \frac{\tilde{B}_{p,0}}{2\pi\tilde{\rho}_{-p,0}} = \frac{\tilde{B}_{p,0}}{2\pi\tilde{\rho}_{0,-p}} = \frac{\tilde{B}_{p,0}}{\tilde{B}_{0,-p}}$$

$$\tilde{\rho}_{p,q} = \frac{\tilde{B}_{-p,q}}{2\pi L_{-p}} = \frac{\tilde{B}_{-p,q}}{2\pi\frac{\tilde{B}_{-p,0}}{\tilde{B}_{0,p}}} = \frac{\tilde{B}_{0,p}\tilde{B}_{-p,q}}{2\pi\tilde{B}_{-p,0}}$$

Figure 4. Our analytic formula for factoring the reflected light field. This allows us to separate the BRDF and lighting up to global scale, provided reciprocity of the BRDF can be taken into account.

3.2 Деловая корреспонденция

3.2.1 Письма-запросы

46. You are a member of a student design bureau. Together with your group mates you have developed a new modernized software package. In order to put it into production you need a certain sum of money. Write a letter to your potential sponsor (an ex-student of your university, at present the head of a prosperous computer company) asking for his investments into your project. Give a detailed description of your package. Try to convince him that your product is much better than the existing analogs and that it will be very popular with computer users. Don't forget to indicate the conditions of your cooperation.

47.1 Read the article below. You are an Import Manager of a big trade company. You have just read an article in a science magazine advertising a new development of the Japanese scientists – Wakamuru, humanoid robot. You think it would be possible to find some people willing to buy this robot in Russia. Write a letter to Mitsubishi Heavy Industries asking them for the following things:

✓ to send technical specifications for the robot;

✓ to send their specialist to your company in order to instruct some of the sales staff how to deal with the robot;

✓ to send some sales literature advertising the latest developments of their Department.

Meet Wakamaru, the Linux-powered humanoid robot

Wakamaru was developed by the Robotics Group of the New Products & Space Systems Department at Mitsubishi Heavy Industries and has an internal software platform that was developed using MontaVista Software's embedded Linux distribution and tool suite. Wakamaru project manager Ken Onishi attributed the choice of embedded operating system to its "sophisticated software base" and "superior networking

capabilities," which enabled the team to "focus on the complex programming that makes this new robot human-like." Additionally, "the robust operating system plays an important role in enabling Wakamaru to service a household 24 hours a day. The following description of Wakamaru's capabilities was provided :

Wakamaru features continuous access to the Internet and comes equipped with voice and face recognition capabilities that allow the robot to search for and follow voices, faces, and movements. It has the ability to comprehend and interact with humans (such as discussing daily news it obtains via the Internet) based on a built-in dictionary and voice recognition, and can be programmed to call or email a designated person, a hospital or security firm if it notices a problem. When connecting remotely to Wakamaru via its built-in camera-equipped mobile phone, users can see images of the house the robot serves and even communicate with family members at home.

An informative online presentation about Wakamaru and its development project is available here. The presentation includes information about the history of the project, the robot's internal architecture, target specifications, and service provision concept -- plus, lots of pictures. The presentation summarizes Wakamaru's concept and capabilities as . . .

- A robot that is friendly to people and useful for your life at home.
- Lives with family members. Speaks spontaneously in accordance with family member's requirement. Has its own role in a family.
- Natural and enriched communication in accordance with life scenes. Recognizes approximately 10,000 words required for daily life and provides topics in accordance with life scenes and communicates in a friendly manner using gestures.
- Autonomous action in accordance with its own rhythm of life. The robot has its daily rhythm of life, moves in accordance with time and purpose, automatically charges its batteries and lives with family members.

- Information and services provided by connecting itself to the Internet. Connects itself to the Internet to provide various external information and services and reflects the information obtained from the contact with the owner in the succeeding service provision.

47.2 You are a representative of Mitsubishi Heavy Industries who has received a letter of request from your potential buyer in Russia. Reply the letter answer the questions about Wakamaru. Give some additional information.

48. Read the following advertisement leaflet. You are a Production Manager in a big industrial corporation. In order to increase the quality of your production process you need Superwool Low Bio Persistent Fibers. Write a letter to Morgan Ltd. Asking for the relevant information regarding the purchase of the new product. Include the following items: price, discounts, terms of payment and delivery, method of payment, warranty period.

MORGAN Ltd.

The Magnetics Division is a leading authority in the world market for magnetics technology. It develops, manufactures and markets special-purpose magnetic materials and the products derived from them. A broad selection of high-grade materials, parts, components and systems are used in virtually every field of electronics and electrical engineering. It is one of the few globally operating corporations able to offer its customers the entire spectrum of magnetic technology from a single source: from soft magnetic products to the world's most powerful permanent magnets, from semi-finished materials to complete systeMs

Superwool   Low   Bio   Persistant   Fibres
The Thermal Ceramics Superwool family of products offers a versatile and market leading alternative to traditional insulation solutions for commercial, industrial, and transportation applications. Superwool products are special alkaline earth

composition fibres that have been uniquely engineered to offer advantages in high temperature insulation applications. Their features include low thermal conductivity, low bio-persistence and low linear shrinkage up to their use limit

These lightweight wool fibres are manufactured using QS 9000/ISO 9002-certified processes and can be bagged as bulk, air laid into blankets, converted into boards, shapes and folded modules, blended with liquid binders for coatings and cements or mixed with other materials for wear and friction resistance

a) Read the news article below.

You are a Development Manager in a leading hi-tech company in Russia. You've just read the news article below and it occurred to you that your researches could make a valuable contribution into the development of the Roadmaste supercomputer. Write a letter to IBM's Development Department offering your idea to participate in this project.

49. You are a development engineer willing to purchase DG535 Pulse Generator. The manufacture (standard Research Systems) has sent you a general description of the product but you are interested in more detailed information. Write a letter inquiring additional information:

DG535

Digital Delay Generator / Pulse Generator

Four independent delay channels

-Two fully-defined pulse channels

-5 ps delay resolution (What is the insertion delay between an external   trigger and the TO pulse?)

-50 ps rms jitter

-Adjustable amplitude and offset

-Delays up to 1000 seconds

-1 MHz maximum trigger rate (What is the minimum frequency resolution?)

-Standard GPIB interface

-Optional ±32 V output (What is the aptitude of the rear-panel output?)

Questions concerning general features: What is it's weight?

What is the warranty?

50. You work in the IT Department of the local Government office. Choose a new printer (options are given below) for your department and write an e-mail to the manufacturer ordering the printer you have chosen.

XEROX LASER PRINTER

Pros: Speedy document printing; includes duplexing; PostScript 3 compatibility; driver and network utility are user-friendly.

Cons: Some colors are dull; shadow detail in photos is lacking; slow when printing photos.

Price as rated: $650 Best Current Price: $549.00 (via ProductFinder)

Company: Xerox, www.xerox

RICOH LASER PRINTER

Pros: Excellent text quality; very good photo and graphics prints; flexible customization options; built-in networking; large paper tray; PostScript 3 capabilities.

Cons: Reds are a little strong in photo prints.

Price as rated: $799 Best Current Price: $347.00 (via ProductFinder)

Company: Ricoh, www.ricoh.com

OKI LASER PRINTER

Pros: Built-in automatic duplex printing; 10/100BaseT Ethernet connection; superior text quality; quick at most tasks.

Cons: First page takes a long time to print; imperfect fine line and graphics printing.

Price as rated: $850 Best Current Price: $628.27 (via ProductFinder)

Company: Oki

3.2.2 Письма-предложения

51. Read the news article below.

You are a Development Manager in a leading hi-tech company in Russia. You've just read the news article below and it occurred to you that your researches could make a valuable contribution into the development of the Roadmaste supercomputer. Write a letter to IBM's Development Department offering your idea to participate in this project.

IBM plans on building Roadrunner, a next-generation supercomputer that will be located at the Los Alamos National Laboratory in New Mexico. The computer will have a performance level of 1 petaflop, which is the equivalent of 1,000 trillion calculations per second. Roadrunner will use a conventional cluster of 16,000 AMD Opteron processor cores alongside 16,000 Cell B.E. chips, with both chips working together to handle a share of the calculating work.

Once completed, the Roadrunner will be the world's most powerful computer, easily outpowering the IBM BlueGene/L system, located at the DOE's Lawrence Livermore National Laboratory. The Blue Gene/L is able to sustain 280 teraflops, only a little more than one-fourth of the petaflop goal of the Roadrunner.

Designers of the supercomputer are also taking space and power consumption issues into mind while designing the Roadrunner. IBM has repeatedly said that the system will use advanced cooling and power management technologies to ensure that Roadrunner will be working as efficiently as possible

---

52.1 You are a Sales Manager in a big computer company. You have just received a new model of laptop computer. Write a letter to your regular customer offering him the new model with its detailed description attached

[Sony VAIO K13 Laptop Computer](#)

Intel Pentium 4 - 2.80 GHz Processor - 512 MB Memory - 40 GB Hard Drive - 15.0 in Display - 7.3

$1,199.95 - $1,298

52.2 You are a customer who has been offered the new model of laptop. Write a reply saying you are not able to buy this model now. Give the reasons for your rejection.

53. You are a development engineer in Robotics Group of the New Products & Space Systems Department at [Mitsubishi Heavy Industries](#). You have finished the development of a new robot. Write a letter to your regular customer describing your new development and offering them to place the first order with a 20% discount.

54.1 You are a Sales Manager in a big software company. You have just launched a new line of products. Write a letter to your regular customer informing them of your new line and attaching a free catalogue of your new products. Offer some discounts.

54.2 You are a customer who has been sent a catalog. You have chosen 2 items on it. Write a letter ordering these items.

55. You are a computer specialist. You friend who works as an architect has asked you to help him choose between two products necessary for his work - Mac Pro and Mac Book Pro. Write her a letter giving your opinion; prove your choice by commenting on the advantages of this product in comparison with another one.

Mac Pro Technical Specifications

Standard Configuration (MA356LL/A)		Build-to-Order Options
Processor	Two 2.66GHz Dual-Core Intel Xeon processors	Two 3.0Ghz Quad-Core Intel Xeon processors Two 2.0GHz, 2.66GHz, or 3.0GHz Dual-Core Intel Xeon Processors
Memory	1GB (2 x 512MB) of 667MHz DDR2 Fully-buffered DIMM ECC	• 2GB (4 x 512MB) • 4GB (4 x 1GB) • 8GB (8 x 1GB) • 8GB (4 x 2GB) • 16GB (8 x 2GB)
PCI Express Graphics	Nvidia GeForce 7300GT 256MB single-link DVI/Dual-link DVI	• ATI Radeon X1900 XT 512MB (2x dual-link DVI) • Nvidia Quadro FX 4500 512MB, Stereo 3D (2 x dual-link DVI) • 2 x Nvidia GeForce 7300GT 256MB • 3 x Nvidia GeForce 7300GT 256MB • 4 x Nvidia GeForce 7300GT 256MB

Hard disk drive	250GB Serial ATA (3Gb/s); 7200 rpm; 8Mb cache	• Hard Drive Bay 1
		  o 500GB Serial ATA 3Gb/s; 7200-rpm; 8MB cache
		  o 750GB Serial ATA 3Gb/s; 7200-rpm; 16MB cache
		• Hard Drive Bay 2
		  o 500GB Serial ATA 3Gb/s; 7200-rpm; 8MB cache
		  o 750GB Serial ATA 3Gb/s; 7200-rpm; 16MB cache
		• Hard Drive Bay 3
		  o 500GB Serial ATA 3Gb/s; 7200-rpm; 8MB cache
		  o 750GB Serial ATA 3Gb/s; 7200-rpm; 16MB cache
		• Hard Drive Bay 4
		  o 500GB Serial ATA 3Gb/s; 7200-rpm; 8MB cache
		  o 750GB Serial ATA 3Gb/s; 7200-rpm; 16MB cache

Optical Drive	16x SuperDrive with double-layer support (DVD+R DL/DVD±RW/CD-RW)

- AirPort Extreme wireless networking [4]

Wireless	Optional

- Bluetooth 2.0 + EDR module

PCI Express	Optional

Apple Fibre Channel PCI Express card

- 20-inch Apple Cinema Display (M9177LL/A)

- 23-inch Apple Cinema HD Display (M9178LL/A)

Displays	-

- 30-inch Apple Cinema HD Display (M9179LL/A)

Upgrades

- 1GB memory kit (M8799LL/A)

- 2GB memory kit (MA685G/A)

- 4GB memory kit (MA686G/A)

- 500GB hard drive kit (MA690G/A)

- NVIDIA GeForce 7300 GT graphics card kit (MA567Z/A)

- ATI Radeon X1900 XT graphics card kit (MA631Z/A)

Accessories

- AirPort Extreme Base Station (M8799LL/A)

- AirPort Express Base Station featuring AirTunes (M9470LL/A)

- Apple Wireless Keyboard (M9270LL/A)

- Apple Wireless Mighty Mouse (MA272LL/A)

- Apple USB Modem (MA034Z/A)

- .Mac Subscription (MA361Z/A)

- AppleCare Protection Plan (M8850LL/B)

Applications

- Final Cut Studio (MA285Z/A)

- Final Cut Express (MA261Z/A)

- Aperture (MA438Z/A)

- Logic Pro (MA328Z/A)

- Logic Express (MA603Z/A)

- Shake (MA434Z/A)

- Mac OS X Server v10.4 (10-client license) (MA613Z/A)

- Mac OS X Server v10.4 (Unlimited-client license) (MA612Z/A)

- Apple Remote Desktop (MA231Z/A)

- iWork '06 (MA222Z/A)

MacBook Pro Technical Specifications

	15.4-inch: 2.16GHz (MA609LL)	15.4-inch: 2.33GHz (MA610LL)	17-inch: 2.33GHz (MA611LL/A)
Display	15.4-inch (diagonal), 1440 x 900 resolution, TFT widescreen		17-inch (diagonal), 1680 x 1050 resolution, TFT widescreen
Processor	2.16GHz Intel Core 2 Duo	2.33GHz Intel Core 2 Duo	2.33GHz Intel Core 2 Duo
Memory	1GB (single SO-DIMM) 667MHz DDR2 SDRAM (PC2-5300)	2GB (two SO-DIMMs) 667MHz DDR2 SDRAM (PC2-5300)	
PCI Express graphics	ATI Mobility Radeon X1600 with 128MB of GDDR3 SDRAM and dual-link DVI	ATI Mobility Radeon X1600 with 256MB of GDDR3 SDRAM and dual-link DVI	
Hard disk drive[1]	120GB Serial ATA; 5400 rpm		160GB Serial ATA; 5400 rpm
Slot-loading optical drive	6x SuperDrive (DVD+R DL/DVD±RW/CD-RW)		8x SuperDrive (DVD+R DL/DVD±RW/CD-RW)
Expansion	One FireWire 400, one FireWire 800, two USB 2.0 ports, and ExpressCard/34 slot		One FireWire 400, one FireWire 800, three USB 2.0 ports, and ExpressCard/34 slot
Video	Built-in iSight camera, DVI, VGA (DVI to VGA adapter included)		
Audio	Combined optical digital input/audio line in, combined optical digital output/headphone out, stereo speakers, microphone		
Ethernet	Built-in 10/100/1000BASE-T (Gigabit)		
Wireless[2]	Built-in 54-Mbps AirPort Extreme (802.11g; 802.11n capable with optional 802.11n enabler)[2]; built-in Bluetooth 2.0+EDR		
Modem	Apple USB Modem (sold separately)		

Input	Apple Remote; full-size, illuminated keyboard with ambient light sensor; scrolling trackpad	
Weight[4]	5.6 pounds	6.8 pounds
Footprint	14.1 x 9.6 inches	15.4 x 10.4 inches
Thickness	1.0 inch	
Video accessories	DVI to VGA adapter included (other adapters sold separately)	
Hardware accessories	85W MagSafe Power Adapter, AC wall plug, power cord, lithium-polymer battery[4]	
Limited warranty and service	Your MacBook Pro comes with 90 days of telephone support and a one-year limited warranty.	

3.2.3 Письма-жалобы

56.1 Two month ago you have ordered a consignment of Firemaster-high temperature performance fiber from Morgan Ltd.(N 3467).It was agreed that the materials had to be delivered within 4 weeks after the date of the order. The consignment has not been delivered yet. Write a letter to Morgan Ltd. complaining about the delay in delivery.

56.2 You are a Sales Manager of Morgan Ltd. You have received a letter of complaint from your customer. Write a reply to this letter explaining that the delay was due to a mistake in the Export Department.

57.1 Last week you ordered Win Organizer in the on-line shop but instead of WinOrganizer you received RedBox Organizer . Write a letter of complaint to the Sales Director, Mr. Jackson asking him to send you the right product and to refund your expenses on posting the wrong one back.

57.2 You are Mr. Jackson, the Sales Director of the on-line shop. Write a reply to your customer's complaint explaining that RedBox Organizer is better than Win Organizer. At the same time emphasize that you will do what he asks unless he changes his mind.

> RedBox Organizer ($40) general-purpose PIM integrates task list with calendar; can enter data without opening the main program; report generator; expense tracking; four-part simultaneous display of Calendar, To-Do, Planner and Anniversary data; can hyperlink project documents with one another, as in Correlate.
>
> WinOrganizer ($40). Two-pane organizer with different windows for: hierarchical folders, tasks (single level, not hierarchical), events, notes, and contacts. Supports MS Word and .rtf import/export.

58.1 You are a General Director of a website design company Reb Orrell. You have been hired by the IT Manager of a medical firm MedTool Ltd, Mr. Brown, to design a website for their firm. An extract from the contract you have signed with your client is given below. Some items of the contract have not been abided (abided items are given in bold). Write a letter of complaint to Mr. Brown, IT Manager of MedTool Ltd., informing him of the problems.

> These are the terms of our agreement together:
>
> 1. Authorization. The above-named client is engaging Reb Orrell, a partnership, located at 1509 Stoney Beach Way, Baltimore, Maryland, 21226, as an independent contractor for the specific project of developing and/or improving a World Wide Website to be installed on the client's web space on a web hosting service's computer. The client hereby authorizes Reb Orrell to access this account, and authorizes the web hosting service to provide Reb Orrell with "write permission" for the client's web page directory, and any other directories or programs which need to be accessed for this project. The client also authorizes Reb Orrell to publicize their completed website to Web search engines, as well as other Web directories and indexes. Reb Orrell will not install any items on a 'free' hosting server.
>
> 2. Website Packages Content. The content of the web pages will be supplied by the client and executed as specified by the client in the "Website Planning

Worksheet" .This website includes up to 5 web pages. In case the client desires additional standard web pages beyond the original number of pages specified above, the client agrees to pay Reb Orrell an additional $100 for each additional web page. Where custom graphic work (beyond the scope of the "Custom Graphics Package" detailed above) is requested, it will be billed at the hourly rate specified below.

3. Maintenance and Hourly Rate. This agreement includes minor web page maintenance to regular web pages (not store product pages) over a three-month period, including updating links and making minor changes to a sentence or paragraph. It does not including removing nearly all the text from a page and replacing it with new text. If the client or an agent other than Reb Orrell attempts updating the client's pages, time to repair web pages will be assessed at the hourly rate, and is not included as part of the updating time. The three-month maintenance period commences upon the date the client signs this contract. Changes requested by the client beyond those limits will be billed at the hourly rate of $ 50.00.

4. Changes to Submitted Text. Please send us your final text. Time required to make substantive changes to client-submitted text after the web pages have been constructed will be additional, billed at the hourly rate.

 5. Web Hosting. The client understands that any web hosting services require a separate contract with either Reb Orrell or with another web hosting service. Reb Orrell will not install any items on a 'free' hosting server. The client agrees to select a web hosting service that allows Reb Orrell full access to the web site and a cgi-bin directory via FTP and telnet. The web hosting service must have the latest version of Front Page Extensions installed on the client's website. The client further understands that if the web hosting service's operating system is not a Unix system, standard CGI software may not work, and providing a substitute may incur additional charges. Reb Orrell will host websites they create for a $250.00 yearly fee and will provide standard website maintenance for websites they design and host. If the Client chooses a different web hosting service, Reb Orrell will only make minor

updates and changes to existing web pages for three months.

6. Legal Stuff. Reb Orrell does not warrant that the functions contained in these web pages or the Internet web site will meet the client's requirements or that the operation of the web pages will be uninterrupted or error-free. The entire risk as to the quality and performance of the web pages and website is with client. In no event will Reb Orrell be liable to the client or any third party for any damages, including any lost profits, lost savings or other incidental, consequential or special damages arising out of the operation of or inability to operate these web pages or website, even if Reb Orrell has been advised of the possibility of such damages. If any provision of this agreement shall be unlawful, void, or for any reason unenforceable, then that provision shall be deemed severable from this agreement and shall not affect the validity and enforceability of any remaining provisions

7. Payment of Fees. Fees to Reb Orrell are due and payable on the following schedule: 50% upon signing this contract, 50% when the web pages have been constructed according to the client's original written specifications. If the total amount of this contract is less than $300, the total amount shall be paid upon signing this contract. In case the client has not secured Web space on a web hosting service by the time the web pages are completed, the web pages may be delivered to the client on diskette or attached to an e-mail message. Advertising the pages to Web search engines and updating occur only after the final payment is made. All payments will be made in US funds payable to Reb Orrell, and mailed to 1509 Stoney Beach Way, Baltimore, Maryland, 21226.

Additional Expenses. Client agrees to reimburse Reb Orrell for any additional expenses necessary for the completion of the work. Examples would be (but are not limited to): purchase of special fonts, graphics, stock photography, templates, themes, software, scripts, etc.

58.2 Write a reply to your partner apologizing for the problems caused and offering your ideas how to solve them.

3.2.4 Письма-благодарности

59. You are a Sales Manager in a small computer firm. Write a letter to your regular customer thanking him for the order he placed with your firm.

60. You have just been offered a place with a leading research company in US. Write a letter thanking them for the job offered.

61. You work as a Personnel Manager in a small Internet company. Your regular customer has sent you a testimonial which you find really rewarding. Write letter thanking him for the testimonial sent.

62. Your business partner has invited you to the presentation if his new project. Write a letter accepting the invitation and thanking him for the invitation.

63. You business partner has sent you a free sample of their new software product. Write a letter thanking them for the sample sent and expressing your positive impression of it.

3.2.5 Заявки на трудоустройство, резюме

64. Read the resume sample and write a covering letter to go with it. In your covering letter indicate that you read it on http//www.yahoohotjob.com.

MEG A. HERTZ

Current Address	Permanent Address	E-mail Address and URL
12 Gates Lane	34 Apple Court	hertzm@ucolo.edu
Boulder, CO 23849	Glendale, CA 19058	http://www.ucolo.edu/cac/hertzm
(614) 555-6145	(714) 555-7145	

OBJECTIVE

A position in software development.

EDUCATION

B.S. in Computer Science, expected May 1998
University of Colorado, Boulder, CO
Cumulative G.P.A. 3.66

WORK EXPERIENCE

Freelance Computer Consultant, September 1997-present
Create World Wide Web home pages and customize computer systems for clients in the Boulder, CO, area.

Intern, June-August 1997
Microsoft Corp., Redmond, WA
Worked as software design engineer intern on SNA Server 3.0. Implemented name-space providers (Windows 95/NT DLLs written in C) for a variety of network protocols, including TCP/IP, Netware IPX, Lanman, Banyan VINES, and AppleTalk.

Undergraduate Research Assistant, September 1996-May 1997
University of Colorado Laboratory for Computer Science
Worked with Professor Daniel S. Patel in the parallel and distributed operating group. Ported UNIX applications to XOK, a prototype exokernal implementation for the Intel x86.

Lab Attendant, September 1995-May 1996
Center for Academic Computing, University of Colorado
Maintain computer hardware and assist users on Windows 95 and Macintosh operating systems and various software packages.

Crew Leader, Summers 1993 and 1994
Mimi's Muffins, Glendale, CA
Supervised crew and managed bakery's daily operations.

COMPUTER SKILLS

Languages and Software
C, C++, Java, LaTeX, HTML, Word, WordPerfect.

Operating Systems
UNIX (Linux, Ultrix, SunOS), Windows 95, Macintosh.

65. Yahoo Recruitment Services are advertising a number of jobs. Read the advertisements below, chose the job to apply for, and write a covering letter to send with your completed CV. You are supposed to be a person who suits the position entirely.

Technical Support Engineer

Provides technical support to field engineers, technicians and product support who are diagnosing, troubleshooting, repairing and debugging complex electro/mechanical equipment, computer systems, and/or complex software. Responds to situations where first-line product support has failed to isolate or fix problems in malfunctioning equipment or software. Reports design, reliability and maintenance problems or bugs to design engineering/software engineering. May be involved in customer installation and training. Provides support to customer/users where the product is highly technical or sophisticated in nature.

Requirements:

- At least 7 years of Support experience
- Previous experience supporting enterprise software
- In-depth knowledge of Windows and/or Solaris OS platforms and Oracle and/or MS SQL databases
- Good working knowledge of Application and Web Servers
- Highly driven and motivated individual
- Ability to work independently and take direction
- Flexible work hours
Plus:
- IT Sys Admin experience

Technical Project Manager

ESSENTIAL FUNCTION

Internal Project Management and Project Architecture

Some Database and User support

DUTIES AND RESPONSIBILITIES:

Computer Lab project management

Project design and architecture of Data management projects including

Indexing, manipulation and QC of data into databases, or other digital format

Client support of document imaging systems utilizing SQL databases.

Perform miscellaneous job-related duties as assigned

KNOWLEDGE, SKILLS, AND ABILITIES REQUIRED:

Project management skills.

Strong PC skills;

Experience with SQL databases;

Troubleshooting skills

Strong logical reasoning

Ability to work effectively independently or with others on staff and with client representatives.

Effective follow-up, multi-tasking and organization skills

Ability to independently extrapolate best method of meeting the requirements of a data management project

Document imaging systems experience a big plus.

Senior Product Engineer

Job Requirements:

- 5+ years hands on' industry experience as a product engineer at a semiconductor company, preferably in analog IC/mixed signal areas.
- Power management IC experience is a great plus.
- Good experience assembly yield data and providing logistics support for new product development.
- Good experience debugging silicon for new products.
- Successful track record as the frontline technical interface with customers on field returns.
- Previous experience using test equipment (oscilloscopes, multimeters and

power suppliers) require

- Willing to travel internationally

66. Read the job advertisement below. You are supposed to be a candidate who suits this position. Write a CV and a cover letter according to the requirements indicated.

Electronic Engineer - Wireline Equipment/PCB Design/Electronics

Electronic Engineer Job: IMMEDIATE NEED!!! Client located in the state of Texas has an immediate need for an Electronics Engineer. This position is mainly associated with printed circuit boards, manufacturing and engineering support. Specific experience designing, developing, and testing electrical and/or electronics hardware and/or firmware for downhole tools and surface systems used in the oilfield industry will be most relevant. Qualifications should include: Bachelor's degree in Electrical or Electronics Engineering or similar discipline; Familiarity with PCB design, manufacturing techniques, and soldering technologies; Advanced familiarity with behavior and main characteristics of passive electronic components (resistors, inductors, transformers, capacitors) from different fabrication technologies; Proficient in circuit analysis (both analog and digital); Ability to analyze, troubleshoot and repair electrical problems at component, PCB and system levels; Experience in assessing signal integrity issues (such as grounding, noise, crosstalk, EMI, etc.); Proficiency using advanced test instruments such as oscilloscopes, logic analyzers, impedance analyzers, etc.; Ability to write technical documents and work on the documentation of engineering changes, specifications and procedures; Readiness to travel worldwide on short notice and perform hands-on work activities (ie. field troubleshooting, repairing, soldering, assembling) as required; Experience with Engineering Documentation Software packages (MATRIX) is a plus; Experience with Reliability Analysis / Assurance and Total Quality Management is a plus;

Previous work experience is a plus and certification as a licensed/chartered professional is preferred. Daily responsibilities will consist of: design, develop and test electrical and/or electronics hardware and/or firmware for downhole tools and surface systems (this may include analog and digital circuitry, power transmission and distribution, signal and communication systems); Solve electronic systems problems; Trouble shooting, repairing and correcting engineering and manufacturing problems associated with electronic modules; Instrumentation maintenance. Client prefers candidates who live in the south Texas area or candidates who are willing to relocate on their own. Questions you will be asked -> Please highlight your experience as an Electronics Engineer. How many years experience do you have? Highlight any specific experience with Printed Circuit Board design, manufacturing, and-or maintenance. Are you able to analyze, troubleshoot and repair electrical problems at the component, PCB and system levels? Are you familiar with the behavior and main characteristics of passive electronic components such as resistors, inductors, transformers, and capacitors? What experience supports this? Please highlight your experience with circuit analysis (analog and digital). Please highlight your experience assessing signal integrity issues (ie. grounding, noise, crosstalk, EMI)   Where   are   you   located   (city,state)?

3.2.6 Профессионально-направленные задания с адаптацией повышенного уровня сложности

Для инженера с направленностью на управленческую деятельность

67. You are a Personnel Manager in a big American computer company specializing in information security software. This year you are planning to send some specialists from your Development Department to take qualification development courses in one of the leading technological universities in the USA. Study the information available

on university Internet sites (study 4-5 universities) and choose the university that suits your needs best. Write an e-mail to the Study Director of the university asking if they can organize a special course for your employees. Ask them to provide the following details: course dates, course fees, course requirements, certificates awarded on completion of the course, and some other information that might be important for you. Leave a voice message for the Development Department Manager telling him about your intentions and asking him to choose 7 employees from his department to be sent for the course.

68. You are a Managing Director in a small English hi-tech company providing Internet service in London. You want to expand your business and open up new markets in other UK cities (2-3). Find out who your competitors are in those cities. Estimate the business opportunities your company may have in these cities and make a business forecast for your company for the next year. Give tasks for the main departments of your company in order to achieve the goal set. Write a report for the Board indicating all the points mentioned above.

Для инженера с направленностью на творческую деятельность:
69. You are a development engineer in a big hi-tech company. Your department has been given a task to develop a new model of portable computer for the FBI agents. Study different models of portable computers available on the market today and find out their strong and weak points. Design a new model that would be different from the existing ones and that would suit FBI's needs most. Write a letter to the General Director of your company describing the model that has been designed. Emphasize its major advantages over the existing ones. Leave a voice message for your General Director asking to arrange a meeting to discuss the project.

70. You are a programmer in a small computer company specializing in computer security. You have developed a new anti-virus program. Name the program. Think about different ways to advertise your product. Make a list of your ideas. Write an article in a specialized computer magazine describing your program. Write a letter to

your regular customers advertising your development. Design a leaflet advertising your program to be distributed among your potential customers.

<u>Для инженера с направленностью на исполнительскую деятельность:</u>

71. You are an engineer in a big computer company. Your department is going to produce a new type of laser printer. Make a list of all materials you will need to produce it (5-6 items). Choose one item which is not available in stock now. Find out what companies produce this material. Give a short overview of these companies and their products in writing. Choose one which, in your opinion, suits your requirements best and write them an e-mail ordering the material you need.

72. You are an Import Manager in a big computer company. A month ago you ordered a new consignment of computer hardware from your regular Korean supplier. The consignment has been delivered but you have found some items to be missing. Moreover, some monitors turned out to be faulty. Write a letter of complaint to your supplier explaining to them the problems you have and suggesting your own ways to solve these problems. Leave a voice message for your General Director explaining the situation and warning him about possible delay in the delivery of some of the items you have ordered.

Приложение

Вводная-обучающая анкета

Вопрос и задание	Ответы
1. Что, по вашему мнению, предполагает фраза «владение письменной речью на иностранном языке»? Пронумеруйте по степени важности данные в графе справа характеристики. В случае равноценности укажите одинаковый	а) четко формулировать свои мысли (логично, последовательно, связно); б) писать грамотно (без орфографических, грамматических, лексических, пунктуационных ошибок); в) хорошо разбираться в вопросе, о котором идет речь, владеть нужной информацией; г) учитывать контекст письменного общения (особенности социокультурной ситуации общения, характеристики человека или группы людей, к которым адресовано сообщение); д) знать основные принципы написания письменных работ различных видов.

номер.	
2. Какими, по вашему мнению, должны быть основные критерии оценки письменных работ? Подчеркните наиболее важные.	а) соответствие заданной теме и требуемому объему; б) демонстрация знаний в рамках предложенной темы; в) использование специальных связующих слов для построения связанного текста; г) логичность текста; д) наличие определенной структуры теста, соответствующей его жанру; е) широта и разнообразие используемого словарного запаса; ж) стилистическая адекватность слов, их правильное сочетание; з) использование подходящих этикетных выражений ; и) правильное использование знаков пунктуации; к) правильное написание слов; л) грамматически правильное построение предложений; м) широта и разнообразие используемых синтаксических структур.
3. Подчеркните те виды письменных работ, которые вы выполняли в школе и в универсистете (на родном и иностранном языках).	а) диктант з) неформальное (дружеское) письмо б) изложение и) тезисы в) сочинение к) проектные работы г) конспект л) курсовая е) аннотация м) статья ж) реферат н) деловое письмо
4. Какие виды письменных работ, предусмотренные программой обучения, представляют для вас особый интерес? Подчеркните нужный вариант.	а) аннотация б) тезисы в) проектная работа г) отчет д) деловые письма е) статья (эссе) ж) описание (продукта, процесса, диаграммы). з) рекламные материалы
5.Какова, по вашему мнению, цель выполнения некоторых из приведенных выше видов письменных	1) кратко передать основную информацию, изложенную в источнике. 2) рассмотреть определенную проблему с различных точек зрения, включая свою собственную. 3) детально описать процесс и изложить результаты

работ? Напротив названия работы (см. предыдущий вопрос) поставьте номер, соответствующей ей цели.	собственных исследований, наблюдений или экспериментов (научного либо профессионального характера). 4) изложить основное содержание прочитанного в кратких формулировках. 5) кратко проинформировать кого-либо о фактах или событиях, свидетелем или участником которых вы были. 6) официально сообщить или запросить информацию делового характера.
6.Какие задачи, по вашему мнению, ставит обучение письменной речи на английском языке? Пронумеруйте по степени важности задачи данные в графе справа . В случае равноценности укажите одинаковый номер. Подчеркните наиболее значимую для вас задачу.	1.Повышение общего развития студента как будущего специалиста. 2.Подготовка к общению с зарубежными коллегами. 3.Подготовка к обучению за рубежом. 4.Подготовка к сдачи международных сертификационных экзаменов (IELTS, TOEFL, FCE и т.д.) 5.Повышение культуры речи как на родном, так и на иностранном языках.

Список используемой литературы:

1. Аннотирование и реферирование. Пособие по английскому языку/Г.И.Славина, З.С. Харьковский, Е.А.Антонова, М.А.Рыбакина. – М.: Высшая школа, 1991. – 156 с.

2. Колкер Я.М., Устинова Е.С., Еналиева Т.М. Практическая методика обучения иностранному языку. – М.: Изд. центр «Академия», 2000. – 264 с.

3. Рябцова Н.К.: Научная работа на английском языке. Руководство по научному изложению. Словарь оборотов и сочетаемости общенаучной

лексики: Новый словарь справочник активного типа. – М.: Флинта: наука, 1999. – 600 с.

4. Рязанцева Т.И. Practical Guide to Analytical Writing. – М.: ИНФРА, 2000. – 224 с.

5. Хенаки М. Квантовое обучения: Разбуди спящего в вас гения. – Минск:ООО «Попурри», 1998. –384 с.

6. Adams C., Peach T. 101 Helpful Hints for IELTS. Academic module. – Oxford: Oxford University Press, 2000. – 172 p.

7. Douglas D. Assessing language for specific purposes. – Cambridge: Cambridge University Press, 2000. – 311 p.

8. Hennessy B. Writing an essay. Simple techniques to transform your coursework and examinations. – New York: Notebooks Ltd., 2004. – 135 p.

9. Jordan R. Academic Writing Course. London: Longman, 1999. – 160 p.

10. Tribble C. Writing. – Oxford: Oxford University Press, 1996. – 172 p.

11. Turley R.M. Writing Essay. A guide for students in English and the Humanities. – London: Routledge Falmer, 2003. – 145 p.

12. Weigle S.C. Assessing Writing. Cambridge Language Assessment Series. – Cambridge: Cambridge University Press, 2002. – 268 p.

13. www.ESLminicof.net

14. www.aapress.com.au

15. www.robotics.com

16. www.culturelab-uk.com

17. www.britishcouncil.ru/virtuallibrary/

18. www.homebusiness.com

19. www.graphics.stanford.edu.com