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GRAMMAR AND TRAINING EXERCISES FOR BEGINNERS

(o’quv-uslubiy qo’llanma)

Buxoro – 2021

Mazkur “**Grammar and Training Exercises for Beginners**” nomli o’quv-uslubiy qo’llanma O’zbekiston Respublikasi Prezidentining 2012 yil 10 dekabrdagi “Chet tillarni o’rganish tizimini yanada takomillashtirish chora-tadbirlari to’g’risida”gi PQ-1875-sonli qarori, Vazirlar Mahkamasining 2017 yil 11 avgustdagi “Ta’lim muassasalarida chet tillarini o’qitishning sifatini yanada takomillashtirish chora-tadbirlari to’g’risida”gi 610 – sonli qarori ijrosini ta’minlash maqsadida tayyorlangan bo’lib, u ingliz tiliga qiziqishi bo’lgan barcha o’rganuvchilar uchun mo’ljallangan.

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O’ZBEKISTON RESPUBLIKASI OLIY VA O’RTA MAXSUS TA’LIM VAZIRLIGI

BUXORO DAVLAT UNIVERSITETI
XORIJIY TILLAR FAKULTETI
TABIIY YO’NALISHLARDA CHET TILI KAFEDRASI

GRAMMAR AND TRAINING EXERCISES FOR BEGINNERS

Ingliz tiliga qiziqishi bo’lgan o’rganuvchilar uchun o’quv-uslubiy qo’llanma

(Buxoro, 2021. – 124 bet)

Buxoro – 2021

Kirish

Fan texnika va texnologiyalar yutuqlari asosida ta’lim tizimini isloh qilishda davr sinovlaridan o’tgan ilg’or tajribalarni o’rganish hamda milliy va umuminsoniy qadriyatlarni e’tiborga olgan holda ularning joriy etilishini ta’minlash, raqobatbardosh kadrlar tayyorlashning muhim omili sanaladi. Amaldagi Davlat ta’lim standartlari, o’quv reja va fan dasturlarini takomillashtirish ehtiyoji ham ana shu islohotlar natijasida yuzaga keldi. Xususan, O’zbekiston Respublikasi Prezidentining 2012 yil 10 dekabrdagi «Chet tillarni o’rganish tizimini yanada takomillashtirish chora-tadbirlari tog’risida»gi ПК – 1875-son qarori hamda Vazirlar Mahkamasining 2017 yil 11 avgustdagi “Ta’lim muassasalarida chet tillarini o’qitishning sifatini yanada takomillashtirish chora-tadbirlari to’g’risida”gi 610 – sonli qarorida belgilangan vazifalar ijrosini ta’minlash maqsadida «Oliy ta’lim muassasalarida chet tillarni o’qitish tizimini yanada takomillashtirish chora-tadbirlari dasturi» ishlab chiqilgan bo’lib, unda chet tillar bo’yicha Davlat ta’lim standartlari, o’quv rejalari va dasturlarini takomillashtirish va bosqichma-bosqich o’quv jarayoniga tadbiq etish ustuvor vazifalardan biri sifatida belgilangan.

Shunday ekan, oliy ta’lim muassasalarida chet tillarni o’qitish masalasiga alohida e’tibor qaratilmoqda. Zero, bugungi kunda chet tillarni o’rganish jarayonlari tabiiy ehtiyojga aylanib ulgurdi. Dunyoda kechayotgan globallashuv jarayonlari har bir kishidan ilm-fan, ijtimoiy hayotdagi olam yangiliklari bilan tanishib borishni talab qilmoqda. Bu esa o’z ona tilini qadrlagan holda chet tillarni ham chuqur o’rganishni talab etadi.

Mazkur metodik qo’llanmaning maqsadi ingliz tiliga qiziqishi bo’lgan o’rganuvchilarga ingliz tili fanidan fonetik, leksik va grammatik bo’limlar bilan qanday ishlash haqida qisqacha tavsiyalar berish va har bir fonetik, leksik va grammatik mavzu topshiriqlarini to’g’ri bajarishlari uchun misollar orqali ko’rsatmalar berish, kasbiy yo’nalish doiraisida tilning og’zaki va yozma shakllarini o’rganganligi, ularning ijtimoiy-madaniy muloqot malakalarini rivojlanganligi, xususan,

o’rganilayotgan chet tilining funksional shakllari va uslublarini, til to’g’risidagi amaliy va nazariy bilimlarini takomillashtirish hamda egallagan bilim, ko’nikma, malakalarini kasbiy va ilmiy faoliyatda erkin qo’llay olishlarini tahlil qilishdan iboratdir.

Ushbu uslubiy qollanma fonetika, leksika va grammatika bilan ishlash haqidagi tavsiyalar, ularga oid misollar, har bir o’tilgan mavzularga oid topshiriqlar, ularda aks etgan grammatik qoidalar haqida qisqacha ma’lumot va mashqlar uchun namunalar keltirilgan. Qo’llanma yakunida mustaqil mutolaa uchun matnlar, noto’g’ri fe’llar jadvali, mundarija va foydalanilgan adabiyotlar ro’yxati berilgan. O’quv-uslubiy qo’llanma 124 betdan iborat.

Mualliflar tomonidan tuzilgan topshiriqlar turli-tuman adabiyotlardan olingan bo’lib, o’rganuvchilar o’z bilimini o’qish, yozish va gapirish ko’nikmalari bo’yicha sinashiga juda qo’l keladi. Mazkur metodik qo’llanma barcha nofilologik ta’lim yo’nalishlariga dars beruvchi ingliz tili o’qituvchilari uchun qo’shimcha manba hisoblanib, undan til o‘rgatish jarayonida keng foydalanishlari mumkin. To’plam oxirida mustaqil o’qish uchun berilgan bir qator turli mavzulardagi matnlar ham o‘rganuvchilarga o’z ustida ishlashga imkon yaratadi.

I Bo’lim. Uslubiy tavsiyalar

O’qish qoidasi

Avvalambor, so’z va gaplarni ni to’g’ri talaffuz qilish va o’qishni o’rganish kerak. Ingliz tilida tovushlarni to’g’ri talaffuz qilish va matnlarni to’g’ri o’qish uchun birinchidan, harf va harf birikmalarini talaffuz qilish, shuningdek, so’z va to’liq gapdagi urg’u qoidasini bilish kerak, bunda asosan, o’zbek tilida mavjud bo’lmagan tovushlar talaffuziga e’tibor berish lozim. Ikkinchidan, tavsiya qilinadigan darsliklar dasturlariga mos keladigan o’qish va talaffuz mashqlari ustida doimiy shug’ullanib turish kerak.

Xatosiz o’qish va o’qiganini anglash uchun ko’rish va eshitish qobiliyatini birlashtiruvchi texnik vositalardan kengroq foydalanish tavsiya etiladi. Yozilgan ovozlarni tizimli tinglash to’g’ri talaffuz qilish mahoratiga ega bo’lishga yordam beradi.

Matnni mutolaa qilayotganda gapni ma’no anglatuvchi qismlarga – sintagmalarga bo’lib o’qish lozim, bu esa matnni xuddi o’ziday anglash uchun to’g’ri o’qish qoidasini ta’minlaydi.

Ingliz alfaviti

Bosma harflar	Inglizcha transkripsiya	O’zbekcha transkripsiya
Aa	[ei]	Ey
Bb	[bi:]	Bi
Cc	[si:]	Si
Dd	[di:]	Di
Ee	[i:]	I
Ff	[ef]	Ef
Gg	[dʒi:]	Ji
Hh	[eɪtʃ]	Eych
Ii	[ai]	Ay
Jj	[dʒeɪ]	Jey
Kk	[kei]	Key
Ll	[el]	El
Mm	[em]	Em
Nn	[en]	En

Oo	[ou]	Ou
Pp	[pi:]	Pi
Qq	[kju:]	Kyu
Rr	[a:]	A
Ss	[es]	Es
Tt	[ti:]	Ti
Uu	[ju:]	Yu
Vv	[vi:]	Vi
Ww	[ˈdʌbljuː]	Dabl yu
Xx	[eks]	Eks
Yy	[wai]	Uay
Zz	[zed]	Zed

Fonetikaga kirish

Aa

[ei]	[æ]	[a:]	[ɔ:]	[ɔ]	[ə]
make plate same	cat bag catch	farm past grass	tall salt walk	watch wash what	about around

Ee

[i:]	[i]	[ɜ:]	[iə]	[a:]
he meet	begin behind	her berth serve	mere here	clerk sergeant

Ii

[ai]	[i]	[i:]	[ɜ:]
fine bind sign	is pick ink	machine ravine	fir bird

Oo

[əʊ]	[ɔ]	[u:]	[ʌ]	[ɔ:]
bone	not	do	son	more
home	got	who	come	for
	long	move	above	store

Yy

[ai]	[i]	[j]
sky	shaky	yes
my	fully	yeast
by	kitty	yawn

Uu

[ju:]	[ʌ]	[ʊ]
tune	cut	put
fume	fuss	pull
mute	plum	full

[i:]

e	Ee	ea	Ie	ei
he	green	read	field	receive
she	tree	speak	chief	perceive
we	keep	teach	thief	conceive

[a:]

a +r	a +ss	a +st	a +sk	a+ sp	a+ lf	a+ lm	a+ nt	ea +r
car	class	past	ask	grasp	half	calm	plant	heart
farm	pass	cast	bask	clasp	calf	palm	can’t	hearth

dark	grass	mast	task					

[ɔ:]

o+r	**a+l l**	**Au**	**aw**	**augh**	**ough**	**wa+ r**
short horse	all call fall	sauce autumm	draw claw	taught caught daughter	thought brought fought	war warm

[u:]

o	**oo**	**ou**
do who move	spoo n too fool	soup group roubl e

[ɜ:]

i+r	**e+r**	**u+r**	**ea+r**
shirt dirt dirth	berth her	fur turn burn	learn earn

[ʌ]

u	**o**	**ou**	**oo**
but gun must	son love some	youn g troub le count ry	blood flood

[aʊ]

Ou	ow
found	how
round	now
count	down

[əʊ]

o	oa	ow	o+ll, ld
phone	boat	know	roll
tone	moan	slow	bold
stone	road	flow	cold

[ɔi]

oi	oy
boil	boy
coin	toy

[iə]

e+re	ea+r
here	ear
mere	hear

[ai]

i	y	igh	i+gn	i+ld	i+nd
nice	sky	high	sign	child	mind
write	fly	light		wild	kind
kite	my	right		mild	bind

[ei]

a	Ai	ay	ey	eigh
take	rain	day	they	eight
sake	plain	say	grey	freigh
lame	pain	may		t

				neigh bour

[eə]

a+re	**e+re**
are	there
dare	wher
fare	e

[ʊə]

oo+ r	**our**
moo r	tour

Leksika bilan ishlash

O’qiyotgan adabiyotni tushunish uchun ma’lum bir so’z va gap boyligiga ega bo’lish lozim. Buning uchun doimiy ravishda ingliz tilida matnlar, gazetalar va mutaxassislikka oid adabiyotlar o’qish tavsiya etiladi.

Leksik zahirani mustahkamlash va boyitishning quyidagi yo’llari tavsiya qilinadi:

A. Lug’at bilan ishlaganda ingliz tili alfavitini yodlash, shuningdek, lug’at tuzilishi va uning kirish qismidagi shart-sharoitlar bilan tanishish lozim.

Б. Har bir o’rganilayotgan so’z daftarga boshlang’ich ko’rinishida, masalan, ot – birlik ko’rinishida, fe’l – noaniq (infinitiv) shaklda, agar noto’g’ri fe’l bo’lsa, uning barcha ko’rinishlari bilan birga yozilishi kerak.

Ingliz tilidan o’zbek tiliga o’girganda quyidagi holatlar qiyinchilik tug’dirishini inobatga olish kerak:

1. So’zlarning ko’pma’noliligi. Masalan, **convention** so’zi quyidagi ma'nolarga ega: 1) majlis, yig’ilish, kengash, съезд; 2) shartnoma, kelishuv, konvensiya; 3) an’ana, rasm, odat.

So’zning kerakli mos ma’nosini faqatgina matn mazmunidan kelib chiqqan holda tanlash mumkin.

The convention was successful.	Yig’ilish muvaffaqiyatli o’tdi.

That is not in accordance with convention. Bu kelishuvga muvofiq emas.

2. Omonimlar (ma’nosi har xil, talaffuzi, ba’zan yozilishi ham bir xil so’zlar). Bunday so’zlarni ko’p ma’noli so’zlardan ajratib bilish lozim.

some – qandaydir va sum – jami, yig’indi

break – sindirmoq, buzmoq va brake – tormoz

left – chap va left - Past Indefinite (Simple) leave – ketmoq, tark etmoq, qoldirmoq fe’lidan.

Only few people write with the left hand.	Kamchilik chap qo’lda yozadi.
They left Tashkent for Samarkand.	Ular Toshkentdan Samarqandga borishdi.

3. Konversiya. Mavjud so’zlarni o’zgartirmasdan, ulardan yangi so’z yashash konversiya deyiladi. Eng keng tarqalgan konversiya bu mavjud otlardan fe’l yasash hisoblanadi. Masalan:

water – suv, to water – sug’ormoq

control – nazorat, to control – nazorat qilmoq

cause – sabab, to cause – sabab bo’lmoq

4. Baynalmilallik. Ingliz tilida boshqa tillardan, asosan, lotin va grek tillaridan kirib kelgan so’zlar katta o’rin egallaydi. Bunday so’zlar keng tarqalgan bo’lib, baynalmillal so’zlarga aylandi.

Bu so’zlarning o’zagiga qarab ularni o’zbek tiliga o’girish qiyin emas, masalan, mechanization - *mexanizatsiya*; atom – *atom* va shu kabilar.

Shuni eslatib o’tish kerakki, ko’pgina baynalmilal so’zlar ma’nosi jihatidan ingliz va o’zbek tillarida farq qiladi, shuning uchun ham ko’pincha ular tarjimonning “yolg’onchi do’stlari” deb ataladi. Masalan, resin qora mum, biroq rezina emas, control nafaqat kontrol (nazorat) qilmoq, balkim boshqarmoq ma’nosi ham bor.

5. So’z yasash. Ingliz tilida leksik zahirani kengaytirishning eng samarali yo’li bu so’z yasash usullarini bilishdir. Agar so’z o’zagini suffiks va prefix (old qo’shimcha) dan ajratib bilsa, noma’lum so’zning ma’nosini aniqlash osonroq bo’ladi. Bundan tashqari, prefix va suffiks ma’nosini bilsangiz, sizga ma’lum bo’lgan o’zakdan yasalgan yangi so’zni anglash qiyin bolmaydi.

Eng ko’p qo’llaniladigan prefix (old qo’shimcha)lar

Old qo’shimchalar	**Misollar**	**Tarjima**
anti-	anti-war	urushga qarshi
co-	co-exist	birga yashamoq
counter-	counter-weight	og’irlikka qarshi
de-	demilitarize	demilitarizatsiya qilmoq
extra-	extraordinary	g’ayrioddiy, favqulodda
in-	incorporate	birlashtirmoq, o’z ichiga olmoq
multi-	multistage	ko’p zinali
over-	overcome	g’olib chiqmoq, yengmoq
poly-	polytechnical	politexnik
post-	postgraduate	aspirant
pre-	predetermine	oldindan aniqlamoq
re-	reorganize	qayta tashkillashtirmoq
trans-	transformation	o’zgartirish
super-	super profits	yuqori daromad
ultra-	ultra-violet	ultrabinafsha
under-	underground	yerosti

Otlarga qo’shiladigan asosiy suffikslar

Suffikslar	**Misollar**	**Tarjima**
-ance	importance	ahamiyat, muhimlik
-ence	silence	jimlik, sukunat
-sion	revision	qayta ko’rib chiqish
-dom	freedom	ozodlik
-ion(-tion,	revolution	inqilob
-ation)	formation	shakllanish, tashkil topish
-ment	equipment	jihoz

-ness	softness	yumshoqlik
-ship	friendship	do’stlik
-age	voltage	elektr kuchlanish
-er	teacher	o’qituvchi
-ty	difficulty	qiyinchilik

Sifat va ravishlarga qo’shiladigan asosiy suffikslar

Suffikslar	Misollar	Tarjima
-able	remarkable	ajoyib, mashhur
-ible	extensible	kengaytiriladigan
-ant, -ent	resistant	qarshilik ko’rsatuvchi
	different	turli
-ful	successful	muvaffaqiyatli
-less	homeless	uysiz, boshpanasiz
-ous	famous	mashhur
-y	sunny	quyoshli
-ly	happily	baxtli

6. Ingliz tilida bir qator fe’llar o’zidan keyin predlog yoki biror ot bilan kelsa, o’zining asl ma’nosini yo’qotadi. Bunday fe’llarga quyidagilarni misol qilish mumkin: **to get, to be, to make, to go, to put, to have** va b:

to go *bormoq*

to go about *aylanmoq* (pul, mish-mish haqida)

to go back *qaytib kelmoq*

to go in for*shug’ullanmoq*

to have *ega bo’lmoq*

to have dinner *tushlik qilmoq*

to have a headache *boshi og’rimoq*

7. Ingliz tilida otlar ko’pincha o’z shaklini o’zgartirmay turib aniqlovchi sifatida ishlatiladi. «ot + ot + ot» (va shu kabilar) strukturasida qator otlar ketma-ket kelgani bois tarjima jarayonida qiyinchiliklar tug’diradi. Eng oxirgi turgan ot asosiy hisoblanadi, qolgani esa uning aniqlovchisidir:

stone building *tosh bino*

grain export *bug’doy eksporti*

Physics Institute Laboratory *Fizika instituti laboratoriyasi*

8. Ilmiy xarakterdagi matnlarda inglizcha so’z birikmalari o’zbek tiliga bitta so’z bilan tarjima qilinadi:

radio operator *radist*

construction works*qurilish*

Uch yoki to’rt iborali birikma bo’lsa, o’zbek tiliga ikki yoki uch so'z bilan tarjima qilinadi: **an iron and steel mill** *metallurgiya zavodi.*

9. Ba’zan ingliz tilidagi so’zlarni o’zbek tiliga o’girganda uning ma’nosini saqlab qolish uchun ikki yoki undan ortiq so'z bilan tarjima qilinadi.

Ot:

Characteristics *xarakterli xususiyat, xarakterli belgi*

Necessities *zaruriy ehtiyojlar*

Output *ishlab chiqarilgan mahsulot; ishlab chiqarish quvvati; chiqishdagi qiymat;*

Fe’l:

To average *o’rtacha sonni tashkil qilmoq*

To include *o’z ichiga olmoq*

10. Ilmiy abiyotlar terminlar ko’pligi bilan xarakterlanadi. Terminlar – ma’lum fan, ishlab –chiqarish sohasidagina qo’llaniladigan va asosan, o'sha soha kishilari tushunadigan maxsus so’zlar. Ba’zi tilshunoslar terminga ilm va texnikaga oid so’z va iboralargina emas, barcha uy-ro’zg’or asboblari nomlarini, ishlab-chiqarishning hozirgi darajasidagi qurollarnigina emas, balki o’tmishdagi ibtidoiy qurollarning barcha nomlarini, shuningdek, kasb-hunarga oid so’zlarni ham kiritadilar. Notanish terminni terminologik lug’atdan izlash tavsiya etiladi.

Ingliz tilidagi grammatik tuzilish xususiyatlari

Ingliz tilining tarixiy rivojlanishi uning grammatik tizimida juda kam qo'shimchalarning saqlanib qolishiga sabab bo'ldi.

Ingliz tilida grammatik qo'shimchalar

Qo'shimcha	So'z turkumi	So'z yasash
-s	*Ot:* 1) ko'plikda; 2) s'egalik kelishigida *Fe'l* 3-shaxs birlikda hozirgi noaniq zamonning bo'lishli shaklida (Present Simple Tense)	—
-er	*Sifat* qiyosiy darajada	Shaxs, predmet nomini anglatuvchi ot
-est	*Sifat* orttirma darajada	—
-ed	*Fe'l:* 1) o'tgan noaniq zamonda (Past Simple Tense); 2) to'liqsiz shaklda (Participle II)	—
-ing	*Fe'l* to'liqsiz shakllarda: Participle I – hozirgi zamon sifatdoshi Gerund – gerundiy Verbal Noun – fe'lli ot	—

Jadvalga doir misollar

-s', 's

1. These machine**s** are highly efficient.
   Bu mexanizm**lar** yuqori samaraga ega.
2. The machine**'s** capacity is high.
   Bu mexanizm**ning** quvvati yuqori
3. He machine**s** these parts.
   U stanokda bu qismlarga ishlov beradi.

-er, -est

light**er** – yengil**roq** a teach**er** – o'qituvchi

the light**est** – yengil **eng** a light**er** – зажигалка (olov tutatish asbobi)

-ed

He light**ed** the lamp – U chiroqni yoq**di**

light**ed** – yoq**ilgan**

-ing

light**ing**– yorituvchi, yoritayotgan (sifat), yoritayotib (hol) (ParticipleI)

light**ing** – yoritish (jarayon nazarda tutiladi) (Gerund)

the light**ing** – yoritish (Verbal Noun)

II bo'lim. Grammatical Minimum of UNIT 1

For accomplishing the tasks in control work 1 it is necessary to learn the following sections of English grammar.

1. **The Noun.** Plurality of Nouns. Articles and Prepositions as Noun Indicators. Expressions of Case Relations in the English Language by means of Prepositions and the Termination - S. A Noun in the Function of Attribute and its Translation into Uzbek.

2. **The Adjective.**Degrees of Comparison of Adjectives. Construction **the more…the less.**

3. **The Numerals.**

4. **Pronouns:** personal, possessive, interrogative, demonstrative, indefinite and negative.

5. The Forms of Present,Past and Future Simple Tense. Conjugation of Verbs to be, to have in Present, Past and Future Simple. The Imperative Mood and its Negative Form.

6. **The Simple Extended Sentence:**a direct word order of narrative and imperative sentences in affirmative and negative forms; a return word order of interrogative sentences. Construction**thereis (are).**

7. The Basic Cases of Word-Formation.

Use samples of the performed exercises.

Samples of the performed exercises

Sample 1 (to ex. II)

Grammatical function of the termination- **S**

1. Schools, colleges and universities in Britain are closed on Saturdays and Sundays. – Shanba va yakshanba kunlari Britaniya maktablari, kollejlari va universitetlarida dars mashg'ulotlari bo'lmaydi.

schools –the plural form of a noun *a school*;

colleges – the plural form of a noun *a college*;

universities – the plural form of a noun *a university*;

Saturdays – the plural form of a noun *Saturday*;

Sundays – the plural form of a noun *Sunday.*

2. Who looks after the older generation? – Kim qari kishilarga g'amxo'rlik qiladi?

looks –3rd person singular of a verb *to look* in Present Simple.

3. Englishmen became the world's leading trading nation. – Inglizlar yetakchi savdogar xalqqa aylanishdi.

The wordworld's – the termination of possessive case of a noun in singular.

4. Many old people live in Old Peoples' Homes, which may be private or state owned. – Ko'pgina qariyalar xususiy yoki davlatga qarashli qariyalar uyida yashaydilar.

The word peoples' - the form of possessive case of a noun *people* in plural.

Sample 2 (to ex. III)

Features of a translation into Uzbek of the English nouns using in the function of attribute before a defined word.

1. In Britain young people like Youth Clubs, thousands of them for music, games, dancing. – Britaniyada minglab yoshlar musiqa tinglash, o'yinlarda qatnashish va raqsga tushish imkoniyati uchun Yoshlar Klublarini yoqtiradilar.

2. There are about 10 million old-age pensioners in Britain. – Britaniyada 10 million atrofida yoshi ulug' nafaqaxo'rlar bor.

EXERCISES

1.1. Read and translate the text into Uzbek.

THE UNITED KINGDOM

The United Kingdom of Great Britain and Northern Ireland consists of four main countries which are: England, Scotland, Wales and Northern Ireland. Their capitals are: London, Edinburgh, Cardiff and Belfast. The UK is an island state; it is composed of some 5500 islands, large and small.

The UK is one of the world's smaller countries. It is situated off the northwest coast of Europe between the Atlantic Ocean to the north and the North Sea to the east, and is separated from the continent by the English Channel and the Strait of Dover[1].

One can see two animals on British royal coat of arms. One of them is the lion. The "King of beast" has been used as a symbol of national strength and of the British monarchy for many centuries. The other one is the unicorn[2]. It is a mythical animal that looks a horse with a long straight horn growing from its forehead, and is a symbol of purity.

The formal name of the British national flag is Union Jack. It combines the St. George's cross of England, St. Andrew's cross of Scotland and St. Patrick's cross of Ireland. The United Kingdom or UK is a political term. All of four countries are represented in Parliament and the abbreviation UK is used on most official documents.

The class system is very important in Britain. It is created by complex system of accents[3], school and family. Social position is often based on the traditions or history of the family, not is money. Many people's class can be identified immediately by the way they speak.

Britain is split up into counties. County councils are elected to runthings[4], such as education, housing, town planning, and rubbish disposal[5].

Britain is a constitutional monarchy. But the monarch's constitutional role is mainly symbolic.

1. Duvr ko'rfazi
2. yakkashox
3. lahja
4. ishni boshqarmoq
5. axlat tozalash

2. Translate the following sentences into Uzbek and explain the function of -s whether it shows the third person singular in Present Simple, whether the sign of plurality or Possessive form of nouns.

1) Small groups of Indians lived scattered over the land between the Atlantic and the Pacific.

2) The country is governed in the Queen's name by the Government.

3) The House of Commons, which plays the major part in lawmaking consists of 635 elected members of Parliament.

3. Find out nouns which are in the function of attribute and translate them into Uzbek.

1) In 1971 there was a reform of the British money system.

2) In everyday speech, the contraction "p" (pronounced [pi:]) is generally used instead of the full word "pence".

3) Just over 700,000 farm workers provide over half the food needed by some 55.5 million people.

4. Copy out the following sentences including different forms of comparison, and translate them into Uzbek.

1) The London Marathon (marofon) is one of the biggest in the world.

2) The air in cities became much cleaner.

3) The more we know the more we forget.

5. Find out indefinite and negative pronouns in the following sentences and translate them into Uzbek.

1) More newspapers are read in Britain than in any other European country.

2) Some of Britain's top scientists are engaged in space research.

3) There are no letters for you on the table.

6. Read the fifth paragraph and choose the right answer to the following question.

What created class system in Britain?

1)The way people speak created the class system.

2) Class system was created by traditions and the way people speak.

3) Complex system of accents, school and family created class system.

1.2. Read and translate the text into Uzbek.

WHO ARE THE BRITISH

Most people are English, Scottish or Welsh, but in some British cities you can meet people of many different nationalities. But is Britain a cosmopolitan society? It really depends on where you go. In 1991 5.5 per cent of the 57 million populations described themselves as belonging to an ethnic minority. Most members of ethnic minorities live in the South – East. In Greater London, they represent 20 per cent of the population.

People have been coming to Britain for centuries: some to get a better life, some to escape natural disasters, some as political or religious

refugees. Many Irish people came to England in 1845 to escapefamine[1], but usually they came to find work. Most of the roads, railways and canals built in the nineteenth century were made by Irish workers.

The greatest wave of immigration was in the 1950's and 1960's. This happened not only in Britain but also throughout Western Europe. Many companies needed people for unskilled or semi–skilled jobs. Britain advertised[2] particularly the English speaking islands of the Caribbean, for[2] people to come to Britain and work. Other people came from Pakistan, Bangladesh, India and Hong Kong.

The number of people asking to settle in Britain is rising, but Britain, since 1971, has reduced the number of people (coming from outside Europe) which it allows to stay. Many people in Britain, in spite of anti – racist – laws, blame unemployment and poor housing[3] on "immigrants".

1. ochlikdan o'lmaslik
2. reklama orqali taklif qilmoq
3. yomon boshpana

2. Translate the following sentences into Uzbek and explain the function of -s whether it shows the third person singular in Present Simple, whether the sign of plurality or Possessive form of nouns.

1) Very often parents treat their children more as equals than they used to.

2)The House of Commons consists of members of Parliament.

3) Numbers make the postman's work much easier.

3. Find out nouns which are in the function of attribute and translate them into Uzbek.

1) Most children at day schools have their midday meal at school and go home about 4 o'clock.

2) In 1958 Britain began the first transatlantic jet service.

3) There is a National Youth Theatre with a high standard of performance; most of its actors are teenagers.

4. Copy out the following sentences including different forms of comparison, and translate them into Uzbek.

1) Today Britain is the world's biggest exporter of cycles.
2) Although Britain is a highly industrialized country, agriculture is still one of her most important industries.
3) More than 55 million people live in Britain now.

5. Find out indefinite and negative pronouns in the following sentences and translate them into Uzbek.

1) In some areas there are middle schools for children of about 9 to 13 who then move to senior (katta, oxirgi) comprehensive schools.
2) Do you know any names of Britain's famous writers, poets, musicians, actors and singers?
3) "There is no place like home" – the English say.

6. Read the fourth paragraph and choose the right answer to the following question.

1) Why has Britain reduced the number of people coming from outside Europe which it allows to stay?
2) … because of unemployment.
3) … because of unemployment and poor housing.

1.3. Read and translate the text into Uzbek.

BRITISH HOMES

About 80 per cent of British people live in houses built close together. Detached houses are usually in expensive suburbs, quite far from the town center. Terraced houses and blocks of flats are mostly found in town centers. They can either be very small two-storey houses with one or two bedrooms or large houses with three or five floors and four or five bedrooms.

About 67 per cent of people in Britain own their houses or flats. Most of the rest live in rented accommodation. People in Britain buy houses or flats because there is not enough rented accommodation and what there is can be expensive.

Council flats[1] and houses are built and owned by the local council. After the Second World War a lot of council flats, known as tower blocks, were constructed. Some were as high as 20 storeys and so badly built that they had to be pulled down only thirty years later.

Modern housing estates[2] are built differently now. There might be a mixture of two-storey terraced houses together with a four-storey block of flats. There are play areas for children and there is often a community centre[3] where people who live on the estate can meet.

Since 1980's council tenants have been able[4] to buy their own homes very cheaply if they have lived in them for over two years. By 1993, 1,5 million council houses had been sold, but only 5000 council houses or flats were built to replace them. This means that it is now very difficult to find cheap housing or rent.

Most British houses have a garden and many British people spend a lot of time in it. Most gardens, even small ones, have flowers and a lawn. If you don't have a garden, it is possible to grow flowers and vegetables on at allotment[5] which is a piece of land rented from the local council.

1. shahar uylari
2. kichik nohiya
3. muloqot markazi
4. yashovchilar (istiqomat qiluvchilar) qodir
5. hovli

2. Translate the following sentences into Uzbek and explain the function of -s whether it shows the third person singular in Present Simple, whether the sign of plurality or Possessive form of nouns.

1) The rooms upstairs are bedrooms; they are often very small.

2) The front door, which faces the street, opens into a hall with two rooms, one on each side of the hall.

3) The British people are the world's greatest tea drinkers.

3. Find out nouns which are in the function of attribute and translate them into Uzbek.

1) Motorcar manufactures, for example, advertise the color of their cars as "Embassy Black" or "Balmoral Stone".

2) Most people in Britain work a five-day week, from Monday to Friday.

3) England is the land of brick fences and stone walls (often with glass embedded along the top).

4. Copy out the following sentences including different forms of comparison, and translate them into Uzbek.

1) The traditional opinion about the British, or the English in earlier centuries, was based on the habits of those Britons who could afford to travel, the diplomats and merchants.

2) The British look on foreigners in general with contempt and think that nothing is as well done elsewhere as in their own country.

3) Much leisure time is spent in individualistic pursuits (mashg'ulotlar), of which the most popular is gardening.

5. Find out indefinite and negative pronouns in the following sentences and translate them into Uzbek.

1) Why do some British people tend to regard their own community as the center of the world?

2) Many British people give their suburban house a name, such as the Cedars, the Poplars,even though there are no trees in their gardens.

3) Englishmen are hostile, or at least bored, when they hear any suggestion that some modification of their habits might be to their advantage.

6. Read the sixth paragraph and answer the following question in the written form.

Where can British people grow flowers if they have no gardens?

1.4. Read and translate the text into Uzbek.

LONDON

London is where the invading Romans first crossed the River Thames. They built a city a square mile in size, surrounded it with a wall and called it Londinium. This original site of London is now called the Cityof London[1] and is Britain's main financial center.

The City is only a very small part of London. In the eleventh century London began to expand beyond the City walls when King Edwardthe Confessor[2] built a huge abbey at Westminster. Even today, Westminster Abbey and the Houses of Parliament, as well as the shops, cafes, theatres and cinemas of the West End, are in the City of Westminster and not in the City of London.

The saying "When a man is tired of London, he is tired of life" (Dr. Johnson) is a cliché, but you can't be bored[3] in London. There are hundreds of historic buildings, galleries and museums. There are parks and street markets, over 80 theatres and even more cinemas.

If you want to discover London, it is best to start with a tour on a sightseeing bus. It is also fun to go on a guided walk. The walks last up to three hours.

The center of London has many different areas. Each one has its own special character. Covent Garden[4] in London West End, is crowded with cafes, clubs and clothes shops. Soho[4] is also known for its clubs. Knightsbridge[4] has a lot of exclusive and expensive shops, as well as many of the embassies. Fleet Street[4] is the home of Law Courts. One part of the West End has so many Chinese shops and restaurants that is called Chinatown.

When you go outside the center you find many areas which used to be small villages. The villages became part of the city when they

expanded but they still managed to keep their village character. Hampstead[4], the best known of the villages, is extremely expensive.

1. Siti
2. Qirol Edvard dindor
3. zerikmaysan
4. Kovent-Garden, Sokho, Naytsbridj, Flit Strit, Khempstid

2. Translate the following sentences into Uzbek and explain the function of s whether it shows the third person singular in Present Simple, whether the sign of plurality or Possessive form of nouns.

1) Many outstanding statesmen, painters, writers and poets are buried in the Abbey.

2) Many visitors to the Abbey are attracted to Poets' Corner.

3) The street called Whitehall stretches from Parliament Square to Trafalgar Square.

3. Find out nouns which are in the function of attribute and translate them into Uzbek.

1) Scotland Yard is situated on the Thames Embankment close to the Houses of Parliament and the familiar clock tower of Big Ben.

2) An interesting branch of Scotland Yard is the branch of Police Dogs, first used as an experiment in 1938.

3) The popular nickname of the London policeman "bobby" is a tribute to Sir Robert Peel, who introduced the police force in 1829, and whose Christian name attached itself to members of the force.

4. Copy out the following sentences including different forms of comparison, and translate them into Uzbek.

1) Most museums of London are free and give free guided tours as well as lectures.

2) Some cinemas are cheaper on Mondays; others sell half-price tickets before 6 p.m.

3) The Cutty Sarkat the village of Greenwich on the River Thames is the most famous teaclipper (choy tortish mashinasi) in Britain.

5. Find out indefinite and negative pronouns in the following sentences and translate them into Uzbek.

1) Some people think that the monarchy should be abolished.

2) The monarchy in Britain has no power and it costs the State a lot of money to maintain.

3) Can you give any examples borrowed from books and films characterizing the British people?

6. Read the fifth paragraph and answer the following question in the written form.

What is called Chinatown?

1.5. Read and translate the text into Uzbek.

STRATFORD – UPON – AVON

No town of comparable size enjoys such universal popularity as Stratford-upon-Avon, the birth-place of William Shakespeare. Year by year the fame of its long established Shakespeare Festival spreads as increasing numbers of visitors from all parts of the world come to enjoy the plays of the greatest dramatist of all time.

Originating as a river – crossing settlement, Stratford-upon-Avon has served as the market center of the surrounding countryside since the grant of its market in 1196. Since 1553 Stratford has remained a self-governing borough and today has a basic population of some fifteen thousand people.

Stratford is a town with a character and atmosphere of its own. Apart from the beauty of its river, its streets and buildings preserve many links

with its interesting past. Most famous are the properties and gardens associated with Shakespeare and his family.

The Shakespeare Memorial Theatre is the center of the Shakespeare Festival. The brick-built theatre was erected in 1932 to replace an earlier theatre destroyed by fire. It is without doubt one of the best equipped theatres and its Shakespearean productions attract an international audience.

The House where Shakespeare was born in 1564 and spent his early years is a half-timbered building. It is visited by pilgrims from all over the world. The interior of Shakespeare's Birthplace contains many features of unusual interest. The poet's birth room on the first floor is a fascinating room with a low, uneven ceiling and is furnished after the pattern of a middle-class home such as the Shakespeare family occupied. It is the famous window on which are recorded the signatures of distinguished people who visited the house.

2. Translate the following sentences into Uzbek and explain the function of s whether it shows the third person singular in Present Simple, whether the sign of plurality or Possessive form of nouns.

1) The ceremony of the Changing of the Guard that takes place daily at eleven o'clock in the morning provokes most interest among tourists.

2) The two principal public attractions of the Royal Academy are the famous series of Winter Exhibitions and the annual Summer Exhibition.

3) The Queen's Gallery has special exhibitions from the Royal collection and may be visited every day except Monday.

3. Find out nouns which are in the function of attribute and translate them into Uzbek.

1) The men took hard and heavy jobs in industry, and the women took the low-paid jobs in factory canteens or restaurants.

2) The British government's policy is that immigrants and their children should enjoy equality of opportunity in every possible way.

3) The remarkable collection of "Holmesiana$_2$" to be seen includes revolvers, handcuffs, a police lantern, a model of handsome-cab and some 19-th-century cartoons.

4. Copy out the following sentences including different forms of comparison, and translate them into Uzbek

1) Hyde Park has a large and most attractive lake called the Serpentine.

2) Street – salesmen promise that the goods are of the highest quality and much cheaper than those you can buy in the West End.

3) Immigrants hoped to find a better way of life in Britain.

5. Find out indefinite and negative pronouns in the following sentences and translate them into Uzbek.

1) The British say that once upon a time people in England kept to any side of the road they liked.

2) There are no trams in London since 1952.

3) Some have had to leave their country for religious or political reasons.

6. Read the fifth paragraph and choose the right answer to the given question.

What is Shakespeare's house?

1) It is middle-class home.
2) It is a half-timbered building.
3) It is a house with low, uneven ceiling.

Grammatical Minimum of UNIT 2

For accomplishing the tasks in control work 2 it is necessary to learn the following sections of English grammar.

1. **Aspectual-temporal forms of a verb**: a) active voice – Simple forms (Present, Past, Future); Continuous forms (Present, Past, Future); Perfect forms (Present, Past, Future); б) passive voice – Simple forms (Present, Past, Future).

Features of a Translation of Passive Constructions into Uzbek.

2. **Modal Verbs:** a) expressing possibility: can (could), may and equivalents of the modal verb can – to be able; б) expressing obligation: must, its equivalents to have to and to be to; should.

3. **Simple Impersonal Forms of a Verb:** Participle I (Present Participle), Participle II (Past Participle) in the function of attribute and circumstance. Gerund, simple forms.

4. Attributive and Objective Subordinate Clauses (conjunctive); Adverbial Subordinate Clauses of Time and Condition.

5. International Words.

Use samples of the performed exercises.

Samples of the performed exercises

Sample 1 (to ex.II)

1. Many have been the victims of racial discrimination. – Ko'pchilik irqiy kamsitishning qurboni bo'lgan.

have been - Present Perfect Active of the verb to be.

2. All the factories, mills, workshops and docks are concentrated in the East End. – Barcha fabrikalar, zavodlar, ustaxonalar va dok (kemalar to'xtaydigan maxsus joy) lar Ist Endda to'plangan.

are concentrated – Present Simple Passive of the verb to concentrate.

Sample 2 (to ex.III)

1. Buckingham Palace was built in 1703 for Duke of Buckingham. – Bukingam saroyi Bukingam gersogi uchun 1703 yilda qurilgan.

was built – Participle II, Past Simple Passive of the verb to build.

2. The statue of Nelson itself, placed towards the sea, measures 17 feet (more than 5m) in height. – Dengizga qarab turgan Nelson haykalining o'zi 17 fut (5 мdan ko'proq) balandlikdan iborat.

placed – Participle II – attribute.

3. When visiting the English Court in about the 14-th century, the royalty and nobility of Scotland stayed at the place now called "Scotland Yard". – Taxminan 14-asrda shotland qirollari va olijanoblari ingliz saroyiga tashrif buyurishganda hozir "Skotland Yard" deb nomlangan joyda to'xtashgan.

(when) visiting – Participle I, adverbial modifier of time

called – Participle II – attribute

EXERCISES

1.1. Read and translate the text into Uzbek.

THE LONDON UNDERGROUND

The first underground railway system in the world was in London. It was opened in 1863 and ran 4 miles (6,5 kilometers) from the west of London to the City in the east. The first lines were built close to the surface and used steam trains. They then built deeper tunnels and the electric underground railway was opened in 1890. This system was called the Tube, still the most popular name for the London Underground. Some of the tube stations are so deep that they were used as air-raid shelters during the Second World War, when hundreds of families would spend the night in the stations.

One million people commute into central London every day. Sixty percent of these people use the Tube, mainly because the Underground system extends far into the suburbs: the Northern Line, running from north to south, covers 18 miles (28 kilometers); the Piccadilly Line, running from east to west is 47 miles (76 kilometers) long.

Buses in London are not as popular as the Tube because they get stuck in traffic. One of the most popular forms of urban transport in Britain used to be the tram. The most environmentally friendly vehicle is a bicycle. London taxis drive round the center of the city looking for a customer. Taxis are often called «cab».

Traditional taxi-drivers or cabbies are proud of the knowledge of London. They have to know every street in the 113 square miles of central London and spend up to four years learning the best routes. To get their license, they have to pass a series of tests, known as The Knowledge, until they are absolutely accurate in their answers. Because of this long training period, cabbies are often angry that people can drive minicabs without a license. Minicabs look like normal cars, do not have meters and cannot pick up people in the street: people have to phone for one.

2. Translate the following sentences into Uzbek, underline in each of them a verb-predicate and define its tense form and voice.

1) Britain in the 1980s and early 1990s had a large road building program.

2) It is not surprising that the car is becoming increasingly popular.

3) Trams were first used in London in 1861, but they were all replaced by bus after 1945.

4) Britain, because it is an island, has always been forced to have good trading relations with other countries.

3. Copy out the following sentences; underline Participle I and Participle II and define their function whether they are in the function of attribute, whether adverbial modifier and or verb-predicate.

1) Being the busiest stretches of water in the world, the English Channel is the busiest passenger terminal in Europe.

2) Nearly all English kings and queens have been crowned in Westminster Abbey.

3) The Houses of Parliament constitute perhaps the most popular and widely spread image of London, known and recognized throughout the whole world.

4) When the great bell was cast in London foundry in 1858, the question of its name was discussed in Parliament.

4. Copy out the following sentences, underline the modal verb or its equivalent and translate them into Uzbek.

1) Some students borrow money from the bank which must be paid back after they leave university.
2) In Britain you can learn to drive a car by taking lesson with an instructor or any experienced driver.
3) British films have to use American actors to appeal to the American cinema-going audience.
4) The Houses of Parliament can be visited by the public.

5. Retell the second and the third paragraphs.

6. Read the fourth paragraph and choose the right answer to the given question.

What is the Knowledge?

1) … the long training period.
2) … alicense.
3) … a series of tests.

1.2. Read and translate the text into Uzbek.

TRAINS

Many people in Britain live in a long way from their work. They often travel by train from the suburbs into the town center to work. These people are commuters. Some people travel more than 200 miles every day and spend up to two hours going to work and two hours going home.

Train tickets may appear to be expensive, but this form of transport is a fast and environmentally friendly alternative to using a car. On some trains, there are study clubs which offer language lessons to commuters on their way to and from work.

The organization of the railway system in Britain has changed recently. For many years the railway was run[1] by a public company, British Rail. In 1944, this company was split into two parts: Railtrack, which owns the track and the stations, and several private companies, which operate the trains.

Some people are worried about the change. They believe that private companies will only run one or two trains a day to small country villages or that they will close village stations.

In 1994, Waterloo International Station was opened. If you travel by train direct from Paris or Brussels to London, you arrive at this station. The station, designed by Nicholas Grimshaw, has won many architectural awards.

Train spotters[2] are fans of trains. You can see train spotters at many train stations. They stand at the end of the platform and spend hours writing down the numbers of the trains. Serious train spotters travel thousands of miles by train trying to collect the number of every train in Britain. Some train spotters prefer the old fashioned steam trains.

1. here – boshqarmoq
2. here – ixlosmandlar, muxlislar

2. Translate the following sentences into Uzbek, underline in each of them a verb-predicate and define its tense form and voice.

1. Even today Tower Bridge regulates a large part of impressive traffic of the Port of London.
2. Since then the Tower has served as fortress, palace, state prison and royal treasury, now it is a museum.
3. Many great men, including Christopher Wren himself, Nelson and others are buried in St. Paul's Cathedral.
4. For an Englishman, the best of all reasons for doing something in a certain way is that it has always been done in that way.

3. Copy out the following sentences; underline Participle I and Participle II and define their function whether they are in the

function of attribute, whether adverbial modifier and or verb-predicate.

1) The first London Underground map was introduced in 1908.
2) English people rarely shake hands except when being introduced to someone for the first time.
3) The working people of Britain have had a long tradition of democracy.
4) The majority of the British population lives in small houses built close together.

4. Copy out the following sentences, underline the modal verb or its equivalent and translate them into Uzbek.

1) What role can museums and art galleries play in the upbringing of children?
2) You have to be seventeen before you can drive a car.
3) We may say that the East End is the hands of London.
4) One must be very careful using the word “subway” in London.

5. Retell the first and the fourth paragraphs.

6. Read the sixth paragraph and choose the right answer to the given question.

What are train spotters?

1) People supporting the development of railway system in Britain.
2) Train spotters are fans of trains.
3) People preferring the old fashioned steam trains only.

1.3. Read and translate the text into Uzbek.

HIGHER EDUCATION IN GREAT BRITAIN

Most big towns in Britain have both a university and a college of higher education. Here are 91 universities in Britain and 47 colleges of higher education.

English universities greatly differ from each other. Studentsapply[1] to universities month before they take their A-levels[2]. The students are given a personal interview[3] and the universities then decide which students they want. They offer them a place which depends on A-level results. The more popular the university, the higher the grades[4] it will ask for.

Most British students choose to go to university a long way from their hometown: university is seen as a time to be independent, to live away from home and develop new interests

British students do not have to pay to go to university, but do need money to live away from home while they are studying. Some students whose parents do not earn a lot of money are given a grant from the local educational authority[5]. If students do not get a grant, parents have to pay for their children. Some students borrow money from the bank which must be paid back after they leave university. In theory the grant pays for rent, food, books, transport and socializing. In fact, the grant is not a lot of money. Students used to work[6] during the holidays to earn more money, but it is now difficult to find such jobs.

Not all students study full time at university or college. Many people combine their studies with work. Some companies release their staff for training[7] one or two days a week or for two months a year. Oxford and Cambridge are the oldest universities in Britain and they have the highest academic reputation.

1. ariza bermoq
2. o’rta maktab dasturi asosidagi yuqori darajali imtihon
3. suhbat
4. eng yuqori o’tish bali
5. mahalliy ta’lim muassasalari
6. ishlaydilar

7. o’qish uchun ishdan ozod qiladilar

2. Translate the following sentences into Uzbek, underline in each of them a verb-predicate and define its tense form and voice.

1. The singing of the Latin hymn has gone on for more than 350 years.
2. Cambridge University is like a federation of colleges.
3. University is seen as a time to be independent.
4. If, for instance, any one leaves a cat to starve in an empty house while he goes for his holiday, he can be sent to prison.

3. Copy out the following sentences; underline Participle I and Participle II and define their function whether they are in the function of attribute, whether adverbial modifier and or verb-predicate.

1) The lawns are closely cropped, their flower beds primly cultivated, and their trees neatly pruned.
2) The London buses first came into the streets in 1829 and they were horse-drawn omnibuses, with three horses.
3) The sign of the London underground - a red circle crossed with a blue stripe can be seen on the buildings or just under a staircase leading straight under the ground.
4) When running along London streets omnibuses manage to maneuver very well without running into one another.

4. Copy out the following sentences, underline the modal verb or its equivalent and translate them into Uzbek.

1) In London one can see many buses, cars and taxes in the streets.
2) You’ll have to find the bus stop yourself and remember to look for the number of the bus on the post at the bus stop.

3) You must remember the number of the bus, because in busy street there may be four or five bus stops close together.

4) Double-deckers (omnibuses) have seats for 65 people and only 5 people are allowed to stand when the seats are full.

5. Retell the first and the fifth paragraphs.

6. Read the fourth paragraph and choose the right answer to the given question.

What is grant?

1) … money borrowed from the bank.
2) … money for rent, food, books, transport and etc.
3) … money have to pay to go to university.

1.4. Read and translate the text into Uzbek.

THE OPEN UNIVERSITY

The Open University was founded in 1964 by the Labor Government for those people, for some reason, had not a chance to enter any of the universities, especially those above normal student age. It takes both men and women at the age 21 and over. At the beginning of the 1990s some 150000 students followed the Open University courses.

No formal academic qualifications are necessary for entry to these courses, but the standards of its degrees are the same as those of other universities. The first course began in 1971, and in a decade the number of undergraduates reached 65,000. It's a non-residential[1] university. In teaching the university uses a combination of television and radio broadcasts, correspondence courses and summer school, together with a network of viewing and listening centres[2].

Lecturers present their courses on one of the BBC's television channels and by radio. They have also produced a whole library of short course-books, which anyone can buy at bookshops. Students write papers based on the courses and discuss them with tutors at meetings or by correspondence once a month.

Degrees are awarded on the basis of creadit[3] gained by success at each stage of the course. Six credits are necessary for a BA degree[4] and

eight credits for a BA Honors degree. The time of staying on at the Open University is unlimited.

1. muayyan joyga ega bo'lmagan
2. video va audio markazlar
3. «muvaffaqiyatli» – topshirilgan imtihonlar uchun baho
4. bakalavr darajasi

2. Translate the following sentences into Uzbek, underline in each of them a verb-predicate and define its tense form and voice.

1. When Shakespeare became successful in London he bought the biggest house in Stratford.
2. Most London buses have a conductor, who will come round (here –barcha yo'lovchilarni nazorat qiladi) and collect fares.
3. The main places the bus goes to are shown on the front of the bus.
4. Birmingham is surrounded by typically English countryside-quiet meadows and woodland, sleepy old-world villages, impressive castles and ancient churches.

3. Copy out the following sentences; underline Participle I and Participle II and define their function whether they are in the function of attribute, whether adverbial modifier and or verb-predicate.

1) The London underground is often called the tube, because it looks like a long, narrow and dimly lit tube, with its walls plastered with all kinds of advertisements.
2) There are hundreds little fishing villages on the south-west coast.
3) The members of the groups that form the Opposition sit on the left, directly facing the Government benches.
4) The light above Big Ben at night and the flag during the day-time signal for the people of London that the members of Parliament, are watching over the nation's interests.

4. Copy out the following sentences, underline the modal verb or its equivalent and translate them into Uzbek.

1) One dog can search a warehouse in ten minutes, whereas the same search would take six men an hour.
2) If you climb another 118 steps, you will be able to stand outside the dome and look over London.
3) English conservatism, on a national scale, may be illustrated by reference to the public attitude to the monarchy.
4) Fine buildings, theatres, museums and big shops can be found in the West End.

5. Retell the first and the third paragraphs.

6. Read the fourth paragraph and choose the right answer to the given question.

What are degrees awarded on?

1) … because students write papers.
2) … because the time of staying on at the Open University is unlimited.
3) … on the basis of credits gained by success at each stage of the course.

1.5. Read and translate the text into Uzbek.

BIRMINGHAM

Long famous as an international business center, Birmingham has developed into a modern and exciting city whose buildings and shops are second to none[1].

Buying and selling has been an important part of life in Birmingham for more than eight hundred years. In fact men used to sell their wives there as recently as the 18-th century! (In 1733 Samuel Whitehouse sold his wife to Thomas Griffiths in the market place for a little more than a

pound!) Although neither husbands nor wives are for sale nowadays, Birmingham's markets offer a large choice of other goods.

Each Tuesday, Friday and Saturday, the colorful rag market can be found. People used to[2] come to buy and sell old clothes (rags) but now there is a wide selection of modern fashions for everybody.

Years ago farmers used to sell their animals at the Bull Ring, but now it is one of the biggest open-air markets and shopping centers in the United Kingdom. People enjoy shopping there because it has modern shops, together with atmosphere of a traditional street market.

1. tengsiz
2. odatda; qoida bo'yicha

2. Translate the following sentences into Uzbek, underline in each of them a verb-predicate and define its tense form and voice.

1. The Science Museum houses the earliest English locomotive actually built (1784).
2. Cambridge University was exclusively for men until 1871.
3. In the 1970s, most colleges of the Cambridge University opened their doors to both men and women, and almost all colleges now are mixed, but it will be many years before there are equal members of both sex.
4. The colleges are not connected with any particular study.

3. Copy out the following sentences; underline Participle I and Participle II and define their function whether they are in the function of attribute, whether adverbial modifier and or verb-predicate.

1) Every college is governed by a dean.
2) A college is a group of buildings forming a square with a green lawn in the center.

3) Mary (queen) had been living quietly in Suffolk (graflik) while England was governed by a group of Protestant nobles acting as regents for the boy king.

4) The dominating factor in Cambridge is its well-known University, a center of education and learning, closely connected with the life and thought of Great Britain.

4. Copy out the following sentences, underline the modal verb or its equivalent and translate them into Uzbek.

1) In order to enter the university, one must first apply to a college and become a member of the university through a college.

2) Students studying literature, for example, and those trained for physics may belong to one and the same college.

3) The fact is that one is to be a member of a college in order to be a member of the University.

4) There are many libraries at Cambridge, and in one of them among the earliest books by Shakespeare and other great writers one may see an early description of Russia by an Englishman on diplomatic service there (in 1591) and a Russian reading book of the 17-th century.

5. Retell the second and the third paragraphs.

6. Read the fourth paragraph and choose the right answer to the given question.

Why do people enjoy shopping in Birmingham?

1) … because they used to sell and buy their wives there.

2) … because they used to sell and buy rags and animals there.

3) … because it has modern shops, together with atmosphere of a traditional street market.

Grammatical Minimum of UNIT 3

For accomplishing the tasks in control work 3 it is necessary to learn the following sections of English grammar.

1. Grammar Functions and Meanings of the Wordsit, that, one.
2. The Passive Voice of Simple, Continuous and Perfect Tense Forms
3. The Function of the Verbs to **be**, to **have**, to **do**.
4. Simple Impersonal Forms of a Verb. The Functions of **Infinitive**. The **Gerund**. Difference between the Gerund and Participle 1.
5. Expression of an Order and Request by Means of the Verb to **let**.
6. Conjunctionless Submission in Attributive Subordinate Clauses.

Use samples of the performed exercises.

Samples of the performed exercises

Sample 1 (to ex.I)

Present Simple Passive

Several new proposals are considered every week. – Har hafta bir nechta takliflar ko'rib chiqiladi.

Sample 2 (to ex. II)

1. One should be careful crossing the street. – Yo'lni kesib o'tayotganda ehtiyot bo'lish kerak.

2. This truck is more powerfulthan that one.– Bu yuk mashinasi unisiga qaraganda kuchliroq.

Sample 3 (to ex. III)

George had to leave alone. – Jorj yolg'iz borishiga to'g'ri keldi.

Sample 4 (to ex. IV)

The text we have just translated is rather interesting. – Biz hozirgina tarjima qilgan matn yetarlicha qiziqarli.

Sample 5 (to ex. V)

The teacher let the students use the dictionaries. – O'qituvchi talabalarga lug'atdan foydalanishga ruxsat berdi.

Sample 6 (to ex. VI)

Before testing the unit was brought to the laboratory. – Sinovdan oldinqurilma laboratoriyaga yetkazildi.

EXERCISES

1.1. Copy out the following sentences, define in each of them the aspectual-temporal form and voice of a verb-predicate. Translate the sentences into Uzbek.

1) Ever since humans have inhabited the earth, they have made use of various forms of communication.
2) The Panama Canal linking the Atlantic and Pacific Oceans was officially opened in 1920.
3) Millions of newspapers and books are being read by British people each day.
4) We will be able to buy the car only with a bank loan.

2. Copy out the following sentences and translate them into Uzbek paying attention on various meanings of words it, that, one.

1) The trouble is that they haven't yet tested this kind of tires.
2) He is one of the most experienced drivers.
3) It is necessary to provide regular supplies of gas to this region.

3. Copy out the following sentences; translate them into Uzbek remembering about different meanings of verbs to be, to have, to do.

1) Creation of new materials is of tremendous importance now.

2) The courses of study have to include mathematics, economics, and engineering subjects.

3) Did they come to see you last Sunday?

4) That science did accelerate markedly in the 19th century

4. Copy out and translate the following sentences into Uzbek paying attention on conjunctionless submission.

1) The experts said the new model could now be used for mass production.

2) We hope you will overcome the difficulties you are confronted with.

5. Copy out and translate the following sentences into Uzbek; pay attention that the request (prompting) in them is expressed by means of a verb <u>to let.</u>

1) Let them inspect your car.
2) Let us do something to help them.

6. Copy out the following sentences and translate them into Uzbek paying attention on the function of infinitive, gerund and participle in the sentences.

1) People made many efforts to find new sources of energy.
2) Travelling can give much more information than we expect.
3) He didn't know any name of all mentioned in the report.

7. Read the text and translate itorally into Uzbek. Copy out paragraph 2-5 of the text and translate them in writing.

THE HIGHER SCHOOL AND THE WAYS TO SCIENCE

Student participation in research is one of the most effective methods for training highly-qualified specialists 'capable of taking part in the rapidly developing scientific and technological revolution.

Students are encouraged to participate widely in research while still at college. The program of studies is designed in such a way as to draw students ever deeper into scientific research.

Research enables the students to improve their knowledge and put to practical use the things they learn at lectures, seminars and laboratories. Furthermore[1], it enables them to realize the practical value of their knowledge, to master the basic experimental techniques, to learn how to handle the modern equipment[2]and analyze the results of the experiment.

Such students graduate as highly-skilled specialists. And this actually is one of the most important tasks facing college.

There are student research societies at every university and institute. Contests[3], competitions and exhibitions, based on student research have become an established tradition. Every year a country-wide student contest is held for the best research project, the winners being awarded special medals and diplomas.

Students are engaged in research under guidance[4] of professors, instructors, engineers and post-graduates. As a rule, students write their term-papers and graduation theses on the problems of their research work. They operate experimental and industrial installations, conduct theoretical investigations, read scientific literature on their specialty.

Many term - papers and graduation thesis include elements of research done at some higher school department on contract with industrial enterprises. Term- papers, research work, graduation theses[5] of practical importance to industry — such are the stages of turning students into highly-skilled thinking engineers ready for independent work even before they get their diplomas.

1. furthermore – bundan tashqari
2. to handle equipment – apparaturalarni boshqarmoq
3. contests – bahslar, musobaqalar, ko’riklar
4. under guidance – boshqaruvi ostida

5. Graduation theses – diplom ishlari

8. Read the text again and choose the right answer to the given question.

Are students encouraged to participate in research while studying?

1) Only after graduating from college students have opportunities to participate in research.

2) Research enables the students to put to practical use the things they learn.

3) Still at college students are engaged in research under guidance of professors and instructors.

1.2. Copy out the following sentences, define in each of them the aspectual-temporal form and voice of a verb-predicate. Translate the sentences into Uzbek.

1) When we are introduced to new people we should try to appear friendly.

2) After inventing dynamite, Swedish – born Alfred Nobel became a very rich man.

3) In recent years riding has become a sport for everybody.

4) He has never played a better game than he has today.

2. Copy out the following sentences and translate them into Uzbek paying attention on various meanings of words <u>it, that, one.</u>

1) These trucks are too small, we'll need bigger ones.

2) That was the distance the car covered in one hour.

3) It is known that the laser has become a multipurpose tool.

3. Copy out the following sentences; translate them into Uzbek remembering about different meanings of verbs <u>to be, to have, to do.</u>

1) Mankind was entering an age of high speeds, pressures and temperatures at the beginning of last century.

2) The evening and correspondence education system has their own advantages.

3) There is scarcely an industry to which plastics don't make a contribution.

4) They did define the properties of the element discovered not long ago.

4. Copy out and translate the following sentences into Uzbek paying attention on conjunctionless submission.

1) The book he recommended to read gives clear understanding of the problem.
2) He said the new system was a marked improvement over the previous one.

5. Copy out and translate the following sentences into Uzbek; pay attention that the request (prompting) in them is expressed by means of a verb <u>to let.</u>

1) Let your students hurry.
2) Let us paint the room in light – green.

6. Copy out the following sentences and translate them into Uzbek paying attention on the function of infinitive, gerund and participle in the sentences.

1) A new comfortable coach was developed to transport people over long distances.
2) It's no use discussing this question now, we must act.
3) While using new method the firm reduces production cost.

7. Read the text and translate it orally into Uzbek. Copy out paragraph 2-5 of the text and translate them in writing.

LEEDS UNIVERSITY

Leeds University has a century-old tradition of teaching and research in mechanical engineering and its degrees are recognized the world over.

The Mechanical Engineering[1] department has about 270 undergraduates and so academic staff. The teaching staff ispracticing engineers as well as academics. They are involved in consultation and research and maintain close links with industry.

The Department offers both three year courses leading to the degree ofBachelor[2] of Engineering (B. Eng.) and four year courses leading to the degree of Master of Engineering[2] (M. Eng.).

The first two years of the courses are common to both three- and four-year schemes and cover basic material for practicing engineers. The course covers solid mechanics, thermo fluids, materials, design, production and computing. There are also courses in mathematics and electronics and in introduction to the role of the engineer in society.

The final years of both schemes offer thirty options[3] from which students choose five or seven subjects. These options include vehicle dynamics, aerodynamics, energy, analysis of manufacturing processes, biomechanical engineering, noise and vibration control, social and industrial psychology.

The courses consist of formal lectures, reinforced by tutorials, laboratory classes and projects, and practical design and computing work. Project work takes the form of assignment which a qualified engineer might be given. The project in the fourth year of the M. Eng. course involves co-operation with industrial engineers.

1. Mechanical engineering – mashinasozlik

2. The degree of Bachelor / Master of Engineering – bakalavr / texnika fanlari magistri darajasi

3. Options – fakultativ fanlar; tanlov fanlari

8. Read paragraph 5 and 6 and answer the following question.

What does the project in the fourth year of the Master of engineering course involve?

1.3. Copy out the following sentences, define in each of them the aspectual-temporal form and voice of a verb-predicate. Translate the sentences into Uzbek.

1) Needles made of iron were discovered in the ruins of ancient Egypt and Rome.
2) When we arrived to the laboratory they were testing that device.
3) Petroleum products have come from one source – crude oil.
4) The investigators have been trying to finish this test.

2. Copy out the following sentences and translate them into Uzbek paying attention on various meanings of words <u>it, that, one.</u>

1) This computer is too expensive, show us another one.
2) It would be impossible to develop new structural materials without new investigation method.
3) He found that the brakes were out of order.

3. Copy out the following sentences; translate them into Uzbek remembering about different meanings of verbs <u>to be, to have, to do.</u>

1) Students are provided with all necessary teaching materials.
2) The science of strength of materials had to cover a long and difficult path.
3) What kind of methods did they suggest?
4) The scientists do contribute to solve many purely industrial problems.

4. Copy out and translate the following sentences into Uzbek paying attention on conjunctionless submission.

1) The test showed the material withstood tremendous stresses without destruction.

2) The properties of all ferrous alloys depend on the percentage of carbon they contain.

5. Copy out and translate the following sentences into Uzbek; pay attention that the request (prompting) in them is expressed by means of a verb to let.

1) Let the block be installed as soon as possible.
2) Let us leave for Irkutsk tomorrow evening.

6. Copy out the following sentences and translate them into Uzbek paying attention on the function of infinitive, gerund and participle in the sentences.

1) Having completed the experiment they decided to analyze the results.
2) The firm is interested in exporting its products.
3) There are many people who like to collect antique cars throughout the world.

7. Read the text and translate it orally into Uzbek. Copy outparagraph 1-5 of the text and translate them in writing.

JAMES WATT

James Watt was born in Greenock, Scotland, and was taught at home, later he went to Greenock Grammar School.

His technical expertise[1] seems to have been obtained from working in his father's workshop and from early in life he showed academic promise. His early formal training was as an instrument maker in London and Glasgow.

Watt combined the expertise of a scientist with that of a practical engineer, for later he was not only to improve the heat engine but also to devise new mechanisms.

In the development of the steam engine James Watt represents the perfecting of a sequence of stages beginning with the Newcomer engine and ending with the parallel motion and sun/planet gearing[2]. The latter is said to have been invented by W. Murdock but patented by Watt.

In the scientific field Watt's finest memorial, apart from steam engines, is his establishment of the unit of power — the rate of doing work. He coinedthe term[3] horsepower (hp.); one horse being defined as equivalent to 33,000 ft.lb. /min[4].

Watt was interested in the strength of materials and designed a screw press for chemically copying written material. A leading brand of reprographic equipment today is remarkably similar. Watt received many honors in recognition of his important works. He was a Fellow of the Royal Society of London and Edinburg, and was a member of the Academy of Sciences in France.

James Watt died in1819 in Heathfield, after a life of incomparable technical value. Later, a statue to Watt was placed in Westminster Abbey.

1. expertise – mahorat
2. parallel motion and sun / planet gearing – parallelogram mexanizm va sayyoraviy uzatish
3. to coin the term – atamasini kiritmoq
4. ft.lb. / min – (a foot-pound per minute) funt/minut

8. Read paragraph 6 and 7 and answer the following question.

What invention of J. Watt is still used in the reprographic equipment today?

1.4. Copy out the following sentences, define in each of them the aspectual-temporal form and voice of a verb-predicate. Translate the sentences into Uzbek.

1) The aborigines taught the early settlers to hunt wild animals.

2) This technology has already been applied to the production of several tools.

3) Many other applications are under investigation in laboratories.

4) The ecologists are trying to preserve our environment for future generation.

2. Copy out the following sentences and translate them into Uzbek paying attention on various meanings of words <u>it, that, one.</u>

1) One should be very careful working with the sharp instruments.

2) I'm afraid that the prices will increase sharply.

3) This is the model of the first automobile. It was propelled by steam.

3. Copy out the following sentences; translate them into Uzbek remembering about different meanings of verbs <u>to be, to have, to do.</u>

1) One engineer doesn't deal with every phase of development of a complex mechanism.

2) Nowadays any investigator does work having access to the scientific information.

3) The experts are to take into account the results of the test.

4) The graduates have an optimal combination of theoretical knowledge and practical skill.

4. Copy out and translate the following sentences into Uzbek paying attention on conjunctionless submission.

1) The dam they built last year made it possible to obviate the danger of the flood.
2) They state automation is the third phase in the development of technology.

5. Copy out and translate the following sentences into Uzbek; pay attention that the request (prompting) in them is expressed by means of a verb <u>to let.</u>

1) Let us call Jane on the telephone.
2) They are going to let him fix the car by himself.

6. Copy out the following sentences and translate them into Uzbek paying attention on the function of infinitive, gerund and participle in the sentences.

1) The flowing water is an unlimited source of energy.
2) The laboratory assistants keep on making experiments.
3) Powerful modern machinery allowed to complete a great deal of work last year.

7. Read the text and translate it orally into Uzbek. Copy out paragraph 1-4 of the text and translate them in writing.

THE DEVELOPMENT OF COMPUTERS

The first computers used thousands of separate electrical components connected together with wires. In the late 1940s, computers were made using vacuum tubes[1], resistors, and diodes. These computers were called first generation computers.

In 1956, transistors were invented. Transistors are made from materials called semiconductors. Computers using transistors were called second generation computers. Second generation computers were smaller than first generation computers. Second generation computers also used little electrical power. Both first and second generation computers were very expensive.

Computer components (such as transistors, diodes, resistors) can now be made from semiconductor materials of different shapes. Nowadays, complete circuits can be made from a single piece of

semiconductor, called a chip. Such circuits are called integrated circuits[2] (ICs).

Computers using integrated circuits were first produced in the 1960s. They were known as third generation computers. Their integrated circuits had about 200 components on a single chip. Today, we can produce more than 100,000 components on a single chip. A chip can be as small as 0.5 cm square.

With the invention of chips, computer manufacture has become much simpler. The manufacturer does not have to connect thousands of components together. Most of the connections are made inside the chip. It is even possible to build a complete in a single chip. A processor on single is called a microprocessor.

1. vacuum tubes – electron lampalar
2. integratedcircuits – birlashgan sxemalar

1.5. Copy out the following sentences, define in each of them the aspectual-temporal form and voice of a verb-predicate. Translate the sentences into Uzbek.

1) Viking – I, after landing on Mars, performed many scientific experiments.

2) No biological life was found on the planet, though it had been speculated by many scientists.

3) Every segment will contain detailed information.

4) The book has been illustrated by the group of young painters.

2. Copy out the following sentences and translate them into Uzbek paying attention on various meanings of words <u>it, that, one.</u>

1) That was one of the reasons for producing the body of plastics.

2) It is known that Leonardo da Vinci was a great artist, engineer and inventor.

3) That was the car we wanted to buy.

3. Copy out the following sentences; translate them into Uzbek remembering about different meanings of verbs <u>to be, to have, to do.</u>

1) Metallurgists were to study a new class of alloys used in rocket engineering.
2) Higher school has become an example of integration of education, science and industry.
3) When the flaws in design do occur they can be a consequence of gaps in theoretical knowledge.
4) Do future improvements depend on the application of science to manufacturing?

4. Copy out and translate the following sentences into Uzbek paying attention on conjunctionless submission.

1) According to the information we have got the giant wave ruined some port structures.
2) He pointed out special attention was given to the resistance of the material to cold.

5. Copy out and translate the following sentences into Uzbek; pay attention that the request (prompting) in them is expressed by means of a verb <u>to let.</u>

1) The mother lets her children watch cartoons in the evenings.
2) Let us spend next Sunday at home.

6. Copy out the following sentences and translate them into Uzbek paying attention on the function of infinitive, gerund and participle in the sentences.

1) While constructing the road much has been done to protect the environment.

2) Achievements in genetics make it possible to control the heredity of plants and animals.

3) Jack is used to driving on the left because he has lived in Britain a long time.

7. Read the text and translate it orally into Uzbek. Copy outparagraph 1-4 of the text and translate them in writing.

ROBOTS — THE IDEAL WORKERS?

We hear many complaints about work in factories; the work is often "boring, heavy and repetitive; the operative[1] doesn't have to think about the work; he gets no job satisfaction.

The answer is a robot. For many jobs a robot is much better than human operative. Once it has been programmed, it will do its job over and over again. It never gets bored; it works at a constant speed; it doesn't make mistakes; its work is always of the same standard; it doesn't get tired; it can work 24 hours a day without breaks for food, rest or sleep.

Robots have other advantages, too. They are designed to do almost any job. You can't change the human body, but a robot's arms, for example, can be made to move in any direction. Robots also do very heavy work and they can operate in conditions that are too dangerous, too hot or too cold for people to work in. They work under water, in poisonous gas and in radioactive areas.

It is obvious that robots have many advantages over human beings. However, it is also true that humans can do many things that robots can't. For example, humans can carry out a task without having to be told exactly how to do it first — in other words, they don't always have to be programmed.

Humans can move, but robots are usually fixed in one place. If they are able to move, robots do it only in a very limited way. Unlike robots, people can know whether what they are doing is good or bad, and whether it is boring or interesting. Also robots are only just beginning to be able to understand speech and writing, but humans communicate

easily with each other by these methods, and by many others — telephone, drawing, radio, and so on — as well.

And we should not forget that robots owe their existence[2] to humans—we make them, repair them and control them, not the other way round.

1. the operative –ishchi
2. to owe one's existence – mavjudlik uchun qarzdor bo'lmoq.

8. Read paragraph 5 and 6 and answer the following question.

What allows us to say that the robots owe their existence to humans?

Grammatical Minimum of UNIT 4

For accomplishing the tasks in control work 4 it is necessary to learn the following sections of English grammar.

1. Complex Forms of Infinitive (**Passive Infinitive, Perfect Infinitive**).Constructions, equivalent to subordinate clauses: Objective Infinitive Construction, Subjective Infinitive Construction.

Participle I, II. An independent participial phrase.

2. Conditional Sentences.

Use samples of the performed exercises.

Samples of the performed exercises

Sample 1 (to ex. I)

1. Millions of people are recorded to have taken part in elections. – Saylovda millionlab kishilar qatnashgani qayd etilgan.

2. We want the new car to be produced by February. – Biz yangi avtomobil fevral oyigacha ishlab chiqarilishini xohlaymiz.

3. The device to be bought must be checked beforehand. – Sotib olinishi kerak bo'lgan qurilma oldindan tekshirilishi lozim.

Sample 2 (to ex. II))

1. The girl reading a newspaper is our student. –Gazeta o'qiyotgan qiz bizning talabamiz.
2. Having finished the experiment the students left the laboratory. –Tajribani tugatgach, talabalar laboratoriyadan ketdilar.
3. His father being very ill, he had to send for the doctor. –Otasi qattiq kasalligi sababli u shifokor chaqirishga majbur bo'ldi.

Sample 3 (to ex. III)

1. If the weather is good we shall go skiing. –Agar havo yaxshi bo'lsa, biz chang'i uchishga boramiz.
2. If the system had been perfected, we should have applied it for new calculations. –Agar tizim mukammallashtirilganda edi, biz undan yangi hisoblar uchun foydalangan bo'lardik.
3.It would be impossible to build spaceships without using new materials and alloys. –Yangi materiallar va qotishmalarsiz fazoviy kemalarni qurishning imkoni bo'lmasdi.

EXERCISES

1.1. Copy out the following sentences and translate them into Uzbek. Remember that objective and subjective constructions correspond to subordinate clauses (see sample 1).

1) We expect the goods to be loaded at once.
2) A contract is known to be the basis of a transaction between the buyers and the sellers.
3) Nuclear energy is expected to become the world's main source of energy.
4) The alloy to be used for this purpose will contain little iron.

2. Copy out the following sentences and translate them into Uzbekpaying attention on a translation of dependent and independent participial phrases(see sample 2).

1) The sun having risen, they continued their way.
2) The agreement is drawn up in the Russian and the English languages, both texts being equal valid.
3) Having translated the article from the newspaper he showed it to the teacher.

3. Copy out the following sentences and translate them into Uzbekpaying attention on a translation of conditional sentences (see sample 3).

1) I would not have believed it unless I saw it with my own eyes.
2) If they found the exact meaning of this word, they would understand the sentence easily.
3) If the builders had not worked hard, the canal would not have been opened in time.

4. Read the text and translate itorally into Uzbek. Copy out paragraph 1- 4 of the text and translate them in writing.

Character and Communication

Communication is the most important skill in life. We spend most of our waking hours communicating. But consider this: You've spent years learning how to read and write, years learning how to speak. But what about listening? What training or education have you got that enables you to listen so that you really, deeply understand another human being from the individual's own frame of reference? Comparatively few people have had any training in listening at all. And, for the most part, their training has been in the personality ethic of technique, truncated from the character base and the relationship base absolutely vital to authentic understanding of another person.

If you want to interact effectively with me, to influence me — your spouse, your child, your neighbor, your boss, your coworker, your friend — you first need to understand me. And you can't do that with technique alone. If I sense you're using some technique, I sense duplicity, manipulation. I wonder why you're doing it, what your motives are. And I don't feel safe enough to open myself up to you. The real key to your influence with me is your example, your actual conduct. Your example flows naturally out of your character, or the kind of person you truly are — not what others say you are or what you may want me to think you are. It is evident in how I actually experience you.

Your character is constantly radiating, communicating. From it, in the long run, I come to instinctively trust or distrust you and your efforts with me. If your life runs hot and cold, if you're both caustic and kind, and, above all, if your private performance doesn't square with your public performance, it's very hard for me to open up with you. Then, as much as I may want and even need to receive your love and influence, I don't feel safe enough to expose my opinions and experiences and my tender feelings. Who knows what will happen?

But unless I open up with you, unless you understand me and my unique situation and feelings, you won't know how to advice and counsel me. What you say is good and fine, but it doesn't quite pertain to me. You may say you care about and appreciate me. I desperately want to believe that. But how can you appreciate me when you don't even understand me? All I have are your words, and I can't trust words. I'm too angry and defensive — perhaps too guilty and afraid — to be influenced, even though inside I know I need what you could tell me.

Unless you're influenced by my uniqueness, I'm not going to be influenced by your advice. So if you want to be really effective in the habit of interpersonal communication, you cannot do it with technique alone. You have to build the skills of empathic listening on a base of character that inspires openness and trust.

1.2. Copy out the following sentences and translate them into Uzbek. Remember that objective and subjective constructions correspond to subordinate clauses (see sample 1).

1) We expect them to complete their research work this month.
2) Demand for coal is expected to remain weak in the developing countries.
3) This machine part was supposed to be made of plastics.
4) The machinery to be installed in this shop is provided with automatic devices

2. Copy out the following sentences and translate them into Uzbekpaying attention on a translation of dependent and independent participial phrases(see sample 2).

1) The students have three lectures today, the last one being on economics.
2) New technological processes having been developed, new types of equipment have been installed in the shop.
3) Having looked through all the documents and letters received that day he went home.

3. Copy out the following sentences and translate them into Uzbekpaying attention on a translation of conditional sentences (see sample 3).

1) He would be asked if he were at the lecture.
2) If the speed of the body were 16 km per second, it would leave the solar system.
3) If I had seen him yesterday I should have tell him about the meeting.

4. Read the text and translate it orally into Uzbek. Copy out paragraph 1- 4 of the text and translate them in writing.

ATOMIC POWER FOR ROCKETS

The heart of a nuclear-rocket engine, of course, is the reactor that converts nuclear energy into heat.

The fuel of the reactor consists of a special kind of «isotope» of Uranium-235. When properly bombarded with neutrons the uranium nuclei break up or «fission» into a pair of fragments and emit more neutrons in the process, thus keeping the reactions going.

The fission process releases energy and the excess energy is carried away by the neutrons and by gamma rays. Since all of the fragments and most of the neutrons and gamma rays are stopped within the reactor, the energy that is released by U-235 fission will heat the reactor.

For making a nuclear-rocket engine thermally efficient the reactor's temperature must be as high as possible. The melting point of uranium, 2,070 degrees F, sets a theoretical limit. Graphite, which withstands much higher temperatures, is a very good material for the reactor's «moderator». So all present experimental reactors for nuclear-rocket engines are made of U-235 metal powder placed in graphite.

A cold gas, hydrogen, enters several hundred narrow passages drilled through the graphite - uranium reactor core and is heated almost to the white-hot operating temperature. On coming from the passages, the hot gas expands through a nozzle in which it attains supersonic speed. The exhaust speed of the nuclear-rocket engine can probably reach 23.000 to 30.000 feet per second, which is twice as much as from a rocket engine using chemical combustion of hydrogen and oxygen.

1.3. Copy out the following sentences and translate them into Uzbek. Remember that objective and subjective constructions correspond to subordinate clauses (see sample 1).

1) We supposed them to have finished their work.
2) The two countries are expected to discuss measures to eliminate double taxation.
3) Television is said to have both advantages and disadvantages.
4) This is the subject to be discussed at the next meeting.

2. Copy out the following sentences and translate them into Uzbekpaying attention on a translation of dependent and independent participial phrases(see sample 2).

1) The night being dark, the victim could not notice whether the robber was armed.

2) Mendeleyev discovered the Periodic law of elements, the table bearing his name.

3) Having refused to unload American ships the French Dockers lost their job.

3. Copy out the following sentences and translate them into Uzbekpaying attention on a translation of conditional sentences (see sample 3).

1) If he were at the Institute now, he would help us to translate the article.

2) He demanded that the car should be repaired by tomorrow.

3) If it had not been so cold, I should have gone to the country.

4. Read the text and translate it orally into Uzbek. Copy out paragraph 1- 4 of the text and translate them in writing.

POWDER METALLURGY LOOKS TOWARDS THE FUTURE

Developments and advances in powder metallurgy, a technology created some 50 years ago, can save manufacturing industry great amounts of valuable materials. Powder metallurgy is a cheap alternative to many conventional manufacturing processes.

When components, simple or complex, require precision and high quality at a comparatively low cost – powder metallurgy can provide the solution of the problem. An important feature of powder metallurgy is that it can provide the industry with such material compositions which are not achievable by any other means.

Components produced by the powder metallurgy process can go straight into the manufacturing cycle or, if required, undergo further processing, including heat treatment. Powder metallurgy is finding new applications in various industries - in electronics, aviation, machine-building, etc.

The unique physical properties of powder metallurgy parts enable oil to be retained in minute porous cavities[1] within the part. This self-lubricating characteristic [2] is long lasting and can eliminate other lubrication systems.

The Byelorussian research and production association for powder has developed a number of processes for powder metallurgy components production. The source material there is metal powder which is subjected to high pressure to acquire a required shape and is then put to thermo-electric furnaces. The resultant parts are more durable and require no additional machining.

1. minute porous cavities – mayda g'ovaki bo'shliqlar
2. self-lubricating characteristic – o'z-o'zini moylash qismlarini ta'minlovchi xususiyat

1.4. Copy out the following sentences and translate them into Uzbek. Remember that objective and subjective constructions correspond to subordinate clauses (see sample 1).

1) He wanted us to visit the art exhibition.
2) High export tariffs are considered to hurt the economy.
3) This machinery is supposed to be installed here next month.
4) The device to be tested will arrive here tomorrow.

2. Copy out the following sentences and translate them into Uzbekpaying attention on a translation of dependent and independent participial phrases(see sample 2).

1) The teacher having asked many questions, the student had to spend much time to answer them.

2) The talks between two countries were conducted behind the closed doors, measures having been taken that no correspondent should receive any information.

3) Having finished the experiment they discussed the results.

3. Copy out the following sentences and translate them into Uzbekpaying attention on a translation of conditional sentences (see sample 3).

1) It is necessary that the car should be repaired by tomorrow.

2) If you apply this method of calculation you will get good results.

3) If the air were only composed of nitrogen burning would be impossible.

4. Read the text and translate it orally into Uzbek. Copy out paragraph 1- 4 of the text and translate them in writing.

TRANSMITTING PICTURES BY TELEPHONE

Pictures can now be sent over the telephone by sound signals. A new machine does this by looking at a picture and telling what it sees over the telephone to a similar machine at the receiving end, which then translates the sound signals it hears back into the form of a picture.

At the sending end, the photograph, drawing business form or document is placed in the machine. At the receiving end, the reproduction appears on ordinary paper. An illustration of ordinary letter size takes six minutes to be received and reproduced.

This is how the machine works. Inside the machine optical devices rotate and pick up reflected light which is focused on and passed through a filter to a photocell or «electronic eye». The photocell generates a signal which is amplified to produce voltages of varying strength.

The voltages are converted into sound, and it is this audible signal which is transmitted over the telephone, just as music or voice transmitted.

At the receiving telephone, the sound is reconverted to an electronic signal and then into a varying voltage. This voltage is applied to a drive mechanism. The mechanism is activated to extend and print out a corresponding dark area of the transmitting picture. The length of the document determines the time needed for transmission.

1.5. Copy out the following sentences and translate them into Uzbek. Remember that objective and subjective constructions correspond to subordinate clauses (see sample 1).

1) The teacher does not consider him to be a good student.
2) Steel production is expected to rise this year.
3) Plastics are supposed to be used instead of metals in many cases.
4) They will need much concrete to be used for soil stabilization.

2. Copy out the following sentences and translate them into Uzbekpaying attention on a translation of dependent and independent participial phrases(see sample 2).

1) Weather permitting the plane will leave early in the morning.
2) He works hard to pass his entrance examinations, his sister doing her best to help him.
3) Having offered them to work abroad he himself refused.

3. Copy out the following sentences and translate them into Uzbekpaying attention on a translation of conditional sentences (see sample 3).

1) If I came earlier I should speak to him.
2) If he had seen you here he would be surprised.
3) If he had taken a taxi, he would have come in time.

4. Read the text and translate it orally into Uzbek. Copy out paragraph 1- 4 of the text and translate them in writing.

THE ATOM STRUCTURE

Our atomic age is more than 2000 years old. More than 2000 years ago Greek philosophers discussed the structure of the atom. One of the philosophers, Democritus, suggested that all matter consisted of particles which are invisible and indivisible. The Greeks called this particle the ‘atom.’

The idea of atomic structure of matter was later almost forgotten and came to life again at the beginning of the 19-th century when the English scientist, John Dalton, introduced into science the idea of the elements, the basic building particles of matter.

Then, after many years of careful research, the discovery of the electron, a part of an atom, was announced. The discovery of the electron was only the first step in the exploration of inner world of the atom. Since it was known that the atom was electrically neutral the physicists now began to search for the positive particles which could balance out the negative charge of the electron.

In 1911 another English scientist, Ernest Rutherford, discovered that the atom had a core, or nucleus, in its center, and that the nucleus was positively charged and contained nearly all the weight of the atom. He showed that the positive charge of the nucleus was caused by particles called «protons».

In 1932 the third basic atomic particle, neutron, was discovered. The weights of the parts of the atom were calculated very carefully and it was found that the proton and neutron have almost the same weight, but they are much greater in mass than the electron.

III bo’lim. TEXTS FOR ADDITIONAL READING

Everything about Myself

Let me introduce myself. My name is Ann. I am twenty. I am a student. I study at the university. I am a prospective economist. I like this profession, that’s why I study with pleasure. My parents are not economists, but they support me in my choice. We are a friendly family and try to understand and support each other in any situation. Understanding and support is what I need in friendship as well. Some of my friends study at the same university. After classes we usually gather together, discuss our plans or problems and have some fun. We have a lot of hobbies.

Sometimes we go to the disco, sometimes organize a picnic in the open air, play sports or watch a nice film. One of my hobbies is cooking. So when my friends come to my house, I bake their favorite apple pie. I also like reading. One of my favorite authors is Chekhov. I like his books, because I can analyze the characters, their way of life and find answers to my questions. My friends also like reading. We sometimes discuss our favorite authors, their books, the style of their writing and ideas depicted in their books. I like making new friends, so, if you like; you may become my friend as well.

My Future Profession and Career

What do you want to be when you grow up? We have heard this question many times during our school years. Perhaps, it was difficult for us to give a definite answer earlier. But now we understand that the time to choose our future profession has come. Finishing school is the beginning of an independent life for millions of school-leavers. Many roads are open before us: technical schools, colleges and universities. Centuries ago there were only a few jobs: people were farmers, bakers, butchers or carpenters. Today there are thousands of different kinds of jobs, and new ones are constantly appearing. No wonder that it is not an easy thing to make the right choice.

When choosing a future career, we should consider different factors. In my opinion, money is one of the most important factors when you make a choice. There are highly paid jobs and low-paid jobs. For example, a businessman, a president or a film star, are highly paid jobs. A worker, a doctor or an engineer, are low-paid jobs. I think everybody wants to earn as much money as possible. Training, promotional prospects and conditions should be also taken into account.

On the other hand, it's good when you get satisfaction from your job. It is very important to choose a profession that suits your interests. In my opinion, a job should be interesting and socially important. Some jobs are considered to be more suitable for men and others for women. For example, the professions of secretary or nurse are more suitable for women. A lifeguard or a pilot is more likely the jobs for men. You should also decide whether you want to work indoors or outdoors.

To make the right choice, you should take into account your traits of character. It goes without saying that to become a good doctor you must be patient, caring and kind. Teacher's work requires love for children, profound knowledge of subjects, and the ability to explain. A secretary has to be efficient and careful in order to do her work quickly and accurately. Salespeople need to be friendly and persuasive, to get people buy their products.

There are so many people who influence us in choosing our occupation. Parents and friends play a very important role in our choices.

My father works for an international company as a managing director. It is a highly paid job and it offers a lot of opportunities. You can travel abroad and meet different people. My father is a friendly person and he is easy to talk to. He thinks that I must choose my future profession according to my taste and preferences. I respect him and I want to become a businessman, too. I have always been interested in economics and I am good at Math. I have an aptitude for working with people, and I think I'm rather communicative and have good social skills. I have good analytical abilities and I am good at problem-solving. Besides, I am good at English. English has become the standard

language for all kinds of international business communications. To know English today is absolutely necessary for every businessman.

To become a successful businessman you should know a lot. So after finishing school I want to enter the university and to study marketing or management. Management deals mainly with people. A manager is a person who directly supervises people in an organization. Managers spend a great deal of time communicating, coordinating and making decisions affecting the daily operations of their organization. Almost everything, a manager does, involve decisions, and in decision-making there is always uncertainty and risk. So managing is a very interesting, but difficult, job.

Marketing deals with market research and commercial activity in general. It involves analyzing business situations, evaluating market opportunities, developing market strategies and controlling their implementation. It is important for a specialist in marketing to be flexible and prepared to make adjustments where necessary, as it is unlikely that any marketing plan will succeed exactly as planned.

My Favorite Book

My favorite book is "The Old Man and the Sea" by Ernest Hemingway. This story is one of the well-known works of the writer. The author depicts the characters of the old man and the boy and their relations very vividly and skillfully. Santiago, the old man, was one of the writer's beloved characters. The old man was a born fisherman, but he was not a butcher and fished only for a living. He was very lonely. He had a devoted friend - the boy, Manolin. The boy loved the old man for his kind heart, his devotion to the sea. Manolin was like a son to Santiago. He took care of the old man's food and his belongings. The old man was glad to pass his experience to the boy. He looked forward to going to the sea together with the boy. All Santiago's life had been in preparation for the battle with big fish. He knew that he had been born for this and it was time to prove it. A strong man at last had met a strong fish. The battle was a difficult one and full of danger. Though the sharks had eaten the fish and nothing had left but the backbone, the old man

had morally won the battle. Santiago's words "man can be destroyed but not defeated" are the main idea of this story. "The Old Man and the Sea" is a masterpiece for its imaginative language and the description of nature.

What is your Favorite Song, and What Feeling does it Give you?

My favorite song has to be Charlie Brown by Coldplay.

The reason why this song is my favorite is because no matter what situation I am in, bad or good the song still brings me a huge abundance of happiness.

I have many songs I love and cherish, but Coldplay Charlie Brown is a song I absolutely adore. It warms my heart and mind, the beginning of the song and the wonderful sound effects gives me a feeling of alleviation and hope, it just drives me into the wonderful, colorful place where I am free from any darkness or hardship I am facing.

The song and the lyrics are so beautiful, the video too it is so colorful, and the song live brings me the happiest tears and emotions.

Sadly I have not seen Coldplay live but I really hope I can, one day. Being able to see Charlie Brown live and be within my favorite song surrounded by lights, people and being literally in the circle of tranquility would be amazing.

I hope one day I can see that song live, that song means a lot to me and holds a lot of emotion and happiness and gives me life and makes me feel so alive in such a way of pure solace.

My other favorite song is Vancouver Sleep Clinic - Collapse, I must point out I do not adore this song as much as Charlie Brown, nothing can top that masterpiece in my opinion, but this song is my second best.

The song also takes me to a place of warmth but at the same time it hits me a little harder my thoughts are sharper and I sometimes feel like my breath is a little heavier (not literally) than when I listen to Charlie Brown. But the song is the kind of song that brings you into another world.

Although both songs are very diametrically opposite, they both bring me into another world; one indulges my body and thoughts with calm solace and the other with a sharp solace.

But Charlie Brown gives my mind color and solace and the urge to want to see that song live, but gives me the biggest amount of emotional happiness and reassurance I could receive. The song is deeply visceral to me.

Collapse gives me a sharp solace and brings thoughts into my head that are kind of blurred but I still feel at ease because the song feels like a mental massage and gives me such a relief from reality.

Sports and Games

People all over the world are very fond of sports and games. That is one thing in which people of every nationality and class are united.

The most popular outdoor winter sports are shooting, hunting, hockey and in the countries where the weather is frosty and there is much snow-skating, skiing and tobogganing. Some people greatly enjoy figure-skating and ski-jumping.

Summer affords excellent opportunities for swimming, boating, yachting, cycling, gliding and many other sports. Among outdoor games football takes the first place in public interest. This game is played in all the countries of the world. The other favorite games in different countries are golf, tennis, cricket, volleyball, basketball and so on. Badminton is also very popular.

All the year round many people indulge in boxing, wrestling, athletics, gymnastics and track and field events. A lot of girls and women go in for calisthenics.

Among indoor games the most popular are billiards, table tennis, draughts and some others, but the great international game is chess of course. The results of chess tournaments are studied and discussed by thousands of enthusiasts in different countries.

So we may say that sport is one of the things that makes all people kin.

Holidays and Traditions

Every nation has its own customs and long-lived traditions. There is a great number of exciting events which take place in every country throughout the year.

Traditions play a more important role in the life of the people.

I think if we keep up our traditions, we preserve national history and culture.

Holidays are especially rich in old traditions. There are three types of holidays in different countries: state or public holidays, religious holidays and family holidays. State holidays usually relate to state history and impotent events of the country. Such holidays unite people; make them feel proud of their nation. For example, in my country there are state or public holidays such as Constitution Day, New Year's Day, the International Women's Day, May Day, Victory Day, Independence Day and others.

State organizations, banks and companies do not work on these days.

People spend holiday time with their families and friends; they go to theatres or exhibitions, or go to city center where there are usually folk festivals and concerts in the open air and celebrate with other people.

I think that some like holidays are in many other countries. New Year's Day is the major family holiday for many Russians. It is a national holiday in Russia, on which most businesses and public offices are closed. Schools and universities are closed too. Religious holidays include Christmas, Easter and some others. There is also a pagan holiday - Shrovetide or Pancake Day. Preparation for Christmas is always pleasant: buying gifts, sending Christmas cards and decorating Christmas tree with small, bright-colored lights. Churches hold a special Christmas services. Christmas starts in the morning with the smell of cookies, cakes, chocolate and cinnamon. I like also to prepare for Easter with my family: we color and decorate Easter eggs, cook Easter cakes and paskha, attend a church service. Shrovetide is very fine holiday in Russia. It is the time to say goodbye to long cold Russian winter. People

cook and eat very many pancakes, go to city center where there is a fair with folk concerts, outdoor traditional games and funs. At the end of this holiday people burn in effigy of winter. Family holidays include birthdays, weddings, anniversaries and other family celebrations. Different families have different traditions of celebrations. My favorite family holiday is New Year's Day. A week before the celebration we decorate a New Year tree with colorful glass balls and toys. My family usually has the New Year dinner. When the clock strikes midnight, we give each other presents. Later, we watch TV and relax and go outside to watch fireworks. Another celebration which I like is my birthday. Usually my friends and I get together, have a party either at my flat or in a cafe and then go' for a walk. I like getting presents and having fun I think that holidays and traditions are important because they connect people and give them an opportunity to have fun and enjoy themselves.

Uzbekistan

Uzbekistan Republic is one of the four Republics of Central Asia. Uzbekistan is situated between the Amu-Darya and Syr-Darya, the greatest Asian rivers. It is the region of flat- lands, mountains and deserts. The territory of the Republic covers 447, 4 thousand square kilometers and is larger than Great Britain or Italy. Uzbekistan borders on Kazakhstan, Kirghizia, Tajikistan and Turkmenia. In the South Uzbekistan borders on Afghanistan. The Republic consists of 12 regions and the Karakalpak Republic. There are about 80 towns and 86 settlements of urban type here.

The climate is continental. A great number of bright sunny days are good for cotton growing. Uzbekistan is one of the most important producers of cotton and silk. If you look at the map of the Uzbek Republic you will see coal, oil and natural gas resources, deposits of marble, non-ferrous and other metals including gold.

According to the last data the population of Uzbekistan is 20 million people. About 120 nations and nationalities live on its territory. Uzbeks represent more than 70% (per cent) of the whole population. Titanic work to develop all sectors of the economy, of industry in

particular, has been done in Uzbekistan. Once there was no industry there; today the Republic has more than 100 industries. Now planes, tractors, cotton harvesters, technical equipment for the textile and chemical industries are being manufactured in.

Independence Day of Uzbekistan

The 1st of September, 1991, is the birthday of new independent republic of Uzbekistan. It is the first and most important public holiday of the country. The whole country celebrates the anniversary of Independence in wide, bright and funny way.

Each region (there are 12 regions in Uzbekistan) prepare various festive programs. Wherever you find yourself this day, you will find a fascinating sight: performances of original folk groups, excitable sports events, various shows and noisy craft fairs. And of course what a holiday is without treats? Festive pilaf is served in the center of a large table, which gathers members of a family, colleagues, neighbors, friends...

The capital of Uzbekistan is preparing to the celebration in advance, because the festive show, which takes place on the main square of the country, the Independence Square, is so spectacular and grandiose that it just takes one’s breath away. Hundreds of extras, dozens of musical and dance groups, the most interesting pop and movie stars participate in it. And in the evening the square is lit up with grandiose fireworks.

The State Symbols of Uzbekistan

The Republic of Uzbekistan has its own state symbols - the flag, the emblem, and the anthem sanctioned by law (The Constitution of the Republic of Uzbekistan, Article 5).

The law about "The State Flag of the Republic of Uzbekistan" was adopted on November 18 in 1991 in the 8th session of the Supreme Council of Uzbekistan. The flag of our country is a symbol of the sovereignty of the Republic. The national flag of the Republic represents the country internationally when official delegations from Uzbekistan

visit foreign countries, as well as at conferences, world exhibition, and sports competitions. The national flag of the Republic is a right-angled colored cloth of three horizontal stripes: blue, white and green. Blue is the symbol of the sky and water, which are the main source of life. Mainly blue was the color of the state flag of Temur. White is the traditional symbol of peace and good luck, as Uzbek people say "Ok yul". Green is the color of nature and new life and good harvest. Two thin red stripes symbolize the power of life. There is a new moon, which symbolizes the newly independent Republic. There are twelve stars, which stand for spiritual sign. The stars also signify the historical traditions of the Uzbek people, as well as ancient solar calendar. A particular attention to twelve stars in the flag is explained yet by another suggestion that in the states previously existed in the territory of modern Uzbekistan the scientific thought as "Astrology" had seen its rise. The stars in the Uzbek flag also point to the ancient roots of local culture, the aspirations of Uzbek people towards perfection and loyalty.

The law about "The State Emblem" was approved by the 10-th session of the Supreme Council of the Republic of Uzbekistan on July 2, 1992. The new state emblem of the Republic of Uzbekistan was created to reflect the many centuries of experience of the Uzbek people. The state emblem of the Republic presents the image of the rising sun over a flourishing valley. Two rivers run through the valley, representing the Syrdarya and Amudarya. The emblem is bordered by wheat on the right side and branches of cotton with opened cotton bolls on the left side. The eight-angle star is at the top of the emblem, symbolizing the unity and confirmation of the republic. The crescent and star inside the eight-pointed star are the sacred symbols of Islam. The mythical bird Semurg with outstretched wings is placed in the center of the emblem as the symbol of the national Renaissance. The entire composition aims to express to desire of the Uzbek people for peace, happiness and prosperity. At the bottom of the emblem inscribed the word "Uzbekistan" written in Uzbek on a ribbon in the national colors of the flag.

The law "On national anthem of the Republic of Uzbekistan" was adopted on the December 10, 1992 at the 11th session of the Supreme Council of Uzbekistan. (Poem by A. Aripov Music by M. Burkhanov)

My country, sunny and free, salvation to your people,
You are a warmhearted companion to the friends
Flourish eternally with knowledge and invention,
May your fame shine as long as the world exists!
Refrain: These golden valleys-dear Uzbekistan,
Manly spirit of ancestors is companion to you!
When the great power of people became exuberant
You are the country that amazes the world!
Belief of generous Uzbek does not die out,
Free, young children are a strong wing for you!
The torch of independence, guardian of peace,
Just motherland is eternally prosperous!
Refrain: These golden valleys-dear Uzbekistan,
Manly spirit of ancestors is companion to you!
When the great power of people became exuberant
You are the country that amazes the world!

Holidays and Memorial Dates in Uzbekistan

Official Holidays in Uzbekistan

Each year Uzbekistan celebrates seven public holidays: 1st of January – New Year, 8th of March – International Women's Day, 21st of March – Navruz, 9th of May – Memorial Day, 1st of September – Independence Day, 1st of October – Teacher's Day, 8th of December – Constitution Day. Also Uzbekistan celebrates the Day of Defenders of Motherland on January 14 and the Day of Remembrance for the victims of political repressions, observed on August 31, though these holidays are not free days. Two major Muslim holidays in Uzbekistan, Ramadan Khait and Kurban Khait, are days off and are celebrated each year according to the lunar calendar.

Holidays in Uzbekistan have own history and its particular significance for Uzbek people. Such holidays as Navruz, Eid-Al-Fitr and

Eid-Al-Adha came from the ancient times, from Zoroastrianism and Islam traditions. Uzbekistan people also widely celebrate international holidays: New Year, the most favorite and magic holiday around the world, and the International Women's Day, devoted to wives, mothers, daughters and all beautiful women of the Earth

The 9th of May in Uzbekistan is the Day of Memory for those who took an active part in the struggle against Nazi invaders in the World War II in the front and in the home front. The 1st of October, the Teacher's Day is the celebration of respect of labor and wise patience of those, who put much efforts and precious knowledge to us. In fact, respect for a teacher has much deeper roots in Uzbekistan, originating in ancient traditions of Uzbek people and related with oriental mentality of honoring elders and sages.

Independence gave to Uzbekistan new holidays, symbols of a new page in the history of the country: Independence Day, Constitution Day, Day of Defenders of the Motherland and others. The Independence Day is widely celebrated. On September 1 many great cultural events such as shows, concerts, festivals and other entertaining events to mark the birthday of independent Uzbekistan take place throughout the country.

All Holidays and Memorial Dates in Uzbekistan

New Year, Day of Defenders of the Motherland, International Women's Day, Navruz, Memory and Honor Day, Day of Remembrance of the Victims of Political Repressions, Independence Day, Teacher's Day, Constitution Day, Ramadan Khait (Eid-Al-Fitr), Kurban Khait (Eid-Al-Adha)

Education System in Uzbekistan

Primary and secondary education is compulsory. Middle General Secondary grants access to academic and specialized post-secondary programs:

Secondary - Technical 15 - 17 ages

Secondary Upper (10 -11classes) 15 – 17 ages Lyceum, Gymnasium

Vocational Specialized 17 - 19 ages (3years)

Bachelor 4 years

Master 2 years

Doctorate 6 (3+3) years

Primary Education in Uzbekistan 11 years of education is compulsory and free, beginning with 4 years at primary school, and followed by 2 phases of secondary education taking 5 and 2 years respectively. Primary school begins at age 6 and there is no specific leaving examination after the 4 years are complete.

The next 5 years are spent at general secondary school from ages 10 to 15. Following that, there is a choice of between 2 to 3 years of upper education at either general or technical vocational schools. The former provides a certificate of completed secondary education and the opportunity to enter university, the latter a diploma of specialized secondary education, through a network of secondary vocational institutions.

Vocational Education. Unemployment remains relatively high, and there are many people desperately in need of new or more appropriate skills. There are a number of state and donor programs in place to address the structural training shortfall. Eventually, the goal is to meet European Union standards.

Higher education is available from several universities and over 50 higher education institutes.

Our University

Bukhara was leading the training of qualified pedagogical staff. Later the university became the basis of Navoi State Pedagogical Institute and Bukhara branch of the Tashkent Institute of Irrigation and Melioration.

The university has scientific schools on philosophy, the Uzbek language and literature, folklore, history of Uzbekistan, physics, biology, chemistry, mathematics and informatics, psychology, pedagogy and economics. Over the years of independence, university professors and teachers have successfully defended 26 doctoral and 201 candidate dissertations. Nowadays, the university has been building on these local schools for many years.

At present, Bukhara State University has 6 faculties and 26 departments, with 6246 students in 35 educational areas and 129 masters in 14 specialties. At the same time, there are 22 senior researchers in the Institute of Advanced Scientific Research and Researches at the existing 21 specialties. 19 professors and teachers of the University who are selflessly professional, competent, deeply aware of responsibility for the fate of the country and people, are devoted to the education of patriotic-minded scientific, scientific-technical and scientific-pedagogical staff and has 128 Ph.D. degrees.

In our country, great care and attention is paid to the education and upbringing of the youth under the auspices of our Honorary President. This attention and careful attitude is also observed from year to year increasing the amount of funds directed to strengthening the material and technical basis of higher education institutions. In particular, in accordance with the Decree No. 1533 May 20, 2011 of the first President of the Republic of Uzbekistan Islam Abduganievich Karimov "On measures to strengthen the material and technical base of higher education institutions and radically improve the quality of training of highly qualified specialists" several buildings and facilities were included in the capital repair program. Based on this decision, the construction and repair works for the amount of 45.551.000.0 (forty five billion five hundred fifty one million) sums were carried out at the university in 2013-2015. Modernized furniture for 1.540.340.0 (one billion five hundred forty million three hundred and forty thousand) sums, lab equipment 93, 574, 0 (ninety three million five hundred seventy four thousand) sums and 48,321, 0 (forty eight million three hundred twenty one thousand) sums were purchased. As a result, 2 educational buildings and 6 student buildings have become modern requirements.

Audience rooms are equipped with modern computer equipment, equipped with video projectors and electronic boards. At the university, the system of internal local network was further upgraded and connected to the Internet with high speed.

In recent years, the university departments have been filled with younger promising pedagogical staff, introducing innovations in science and education, ensuring the continuity of "science-education-production", restoring the activities of traditional scientific schools, are making progressive steps toward the creation of schools, raising a spiritually mature, educated person, and bringing achievements in the field of information technology into the educational process. The strategic conceptual program for 2015-2025 was developed to modernize the Bukhara State University for the sake of these great goals.

The team of Bukhara State University actively participates in the projects of state scientific and technical programs. Bukhara State University conducts international cooperation with more than 20 scientific and educational centers and universities and foreign organizations in foreign countries. Achieving international grants for international programs and funds has always been one of the most remarkable at the university. At Bukhara State University, there are 6 projects of Tempus fund aimed at the development of higher education. Four more projects were announced in 2015.

The prospective directions of science at the university are increasing year by year. The problems of alternative energy sources, optics, helio-technology, soil science and soil corrosion, composing materials, problems of philology (linguistics, literature and folklore), historical historiography and sources of history of Uzbekistan, actual problems of the history of Eastern philosophy, Problems such as the creation of new varieties of agricultural crops, development of national programs on information and communication technologies, microscopic and high water use in biodiversity conservation and biotechnological treatment of wastewater, algebra, geometry, ornithology, pedagogy, psychology economics and tourism services have made a great contribution to the development of scientific capacities in the educational institution.

Implementation of the effectiveness and results of scientific research carried out at the university in various spheres of the national economy, establishing an effective mechanism of innovative

(collaborative) cooperation of science and production, training of highly qualified cadres and there to strengthen the role of production in the process of providing support, to further improve the effectiveness of the university research, to ensure the institutional cooperation of the scientific and technological developments created in the result of scientific research conducted by professors and scientists Research Laboratory "Problems of Biotechnology", "Heliophysics and Solar Energy", "Heliopoligon", "Problems of desert ecosystem", "Environmental Center", "Center for Psychological Services", " Center for Scientific Research "Center for Innovative Science and Education Technologies".

More than forty innovations, which are included in the university's "Cataloguist" in 2015, were distributed to production enterprises, organizations, farmers and at the republican and regional innovation fairs, More than 10 contracts worth over 2 million sums were signed.

There are enough opportunities for the University to raise the mentor-student system, to increase the potential for educating young scientists and talented students, in particular, to increase the love and interest of young people in science.

Automated electronic control systems for educational process and documentation are created at the University with the participation of teachers and students, and they are also being optimized at the same time. In order to accelerate scientific work in this direction, a software engineering laboratory was established at the same department. The informational system supporting the educational and informational processes within the framework of its main scientific directions - BUIS; LMS Moodle, a software system that supports the development of curricula and teaching materials based on modular programming; Improvements to the functional capabilities of the Cute Flow software system - support and monitoring of document flow streaming information flows in the university.

In 2015, in cooperation with PSUAITI Bukhara ITS seed farmers, 22 different collections were created to produce high-quality, high-quality, fast-paced, resistant to all adverse environmental conditions and

meet international market requirements, In order to achieve the planned plan, 10 varieties were selected from among them, and hybridization of first-generation hybrid combinations was made. Such experimental researches will be further expanded taking into account the varieties of cotton "Bukhara - 6-10", "The power of Jondor" and "Porloq".

All ecological problems in the Bukhara region - changes in climate, in particular desertification processes, changes in the amount and duration of rainfall, freshwater problems, changes in soil structure, natural vegetation and flora as a result of the deterioration of living conditions, many of them are becoming increasingly scientifically relevant to the region.

In conclusion, this historic age of 85 years, this educational institution offers innovative, innovative, collaborative, innovative ideas, developments and technologies at the Republic fairs Providing an effective team of professors and lecturers, providing an innovative team consisting of leading professors, teachers, senior researchers, independent researchers, students and industrial enterprises to continue the traditions of the existing scientific schools, to effectively use the potential of many years of scientific, pedagogical and professional experience, to attract talented students to scientific research and to develop prospective scientific and pedagogical cadres, a system of targeted works has been developed. Also, the university attaches great importance to creating opportunities for increasing quotas for employment of graduates of secondary special vocational colleges.

Historical Places in Uzbekistan

Uzbekistan is one of the fascinating countries in Central Asia and famous for its Silk Road cities of Samarkand and Bukhara. Twice the size of the UK, it has a rich cultural heritage and a long history steeped in tradition. You won’t be surprised to learn that it is home to four significant UNESCO World Heritage sites and six UNESCO Intangible Cultural Heritage listings.

“Samarkand – Crossroad of Cultures” is the official moniker used to describe this city as a UNESCO World Heritage site. Samarkand

conjures up images of ancient times and sounds almost mythical. However, this is no fairytale: Samarkand today is a lively city which cherishes its traditions. Archaeological excavations have revealed a history which dates back 3500 years; the town of Afrosiab was founded in the 7th century BC. The area was continuously inhabited and served as a melting pot of diverse cultures. It was conquered by Alexander the Great and Genghis Khan, was the sumptuous capital of the Timurid Empire and played an important role in the development of Islamic architecture and arts. You won't want to miss Registan square, the Bibi Khanum and Gur Emir Mausoleums, the Shah-i-Zinda complex, Afrosiab & the Ulughbek Observatory.

The historic center of Bukhara has been an important base for Islamic theology and science for several centuries. Its well-preserved city center was recognized by UNESCO as an exemplary medieval city. City planning, urban, economic and scientific development in Bukhara had a large impact on the Islamic World in the middle Ages. The earliest architectural monument is the tomb of Ismail Somoni dating back to the 10th century. For seven centuries up until the 16th century, it was the largest Islamic center for the study of Sufism with hundreds of mosques and madrasas or learning places. World-renowned scholar Avicenna was born near Bukhara and grew up there. While in Bukhara we'd recommend taking a stroll around the old city to savor its architectural legacy and imagine you bargaining as they would have done in medieval times.

Khiva is one of the top places to see in Uzbekistan. The first UNESCO World Heritage site in Uzbekistan was inscribed in 1990 noting its importance in the exceptional heritage of ancient Silk Road traditions. Itchan Kala, which literally translates as the inner part of the old city, is surrounded by thick mud walls. It contains 51 monuments and is although around 250 households still make their home inside, it feels more like an open-air museum. Looking down from Islam Khoja minaret or the city walls, it's hard to imagine this is the 21st century. It is here in Khiva that the scholar AI-Khoresmi, the father of algebra, was

born and introduced algorithms to the world. Take a guided tour to get to know the stories that feature in the history of this fascinating city.

Shakhrisabz. Uzbekistan travel inspiration: the birthplace of Tamerlane. This flourishing city of the Timurid Empire is the birthplace of the great medieval conqueror Amir Temur. It has exceptional monuments from 14th to 15th centuries though its history dates back over 2000 years. Its historic center retains the layout from the original Timurid city planning. Amir Temur ordered the Ark Sarai – the white summer palace – to be built as well as his own grave.

Tamerlane's summer palace was one of the highlights of the Timurid architecture. These days you can still see the remains of the palace's 65 meter high monumental gates.

Tashkent is the capital of Uzbekistan and with a population of 3 million people; it is the largest city in Central Asia. This large metropolis reflects the historical development of the country from its architectural monuments of oriental design to its Soviet planned street layout and its modern glass high buildings. The area of modern Tashkent was already settled in the 5th to 3rd centuries BC. Its name literally translates as "stone city". It has been destroyed several times in history; the most recent damage came from the earthquake in 1966 when many of its ancient historical monuments were destroyed. Thus Tashkent today is a modern city with a wide variety of restaurants and shopping opportunities. The largest city in Uzbekistan is Tashkent.

Ancient Khwarezm was known for its numerous fortresses rising above the deserts of Kyzyl Kum. There are fortresses dating back more than 2200 years. Most of them were settlements, fortresses with walls that could be seen from another fortress, and thus designed to help maintain control over the region and to pass on messages. There are numerous legends connected to each of these fortress ruins and rich archaeological finds. One of the most special is called Chilpyk, which used to be a place of Zoroastrian burial practice. Dead bodies were left there for years and the cleaned bones would be collected to be buried in ossuaries.

The Fergana Valley has been and still is an important crossroads for different religions, cultures, and nations. Split between Uzbekistan, Tajikistan and Kyrgyzstan it shows the diversity on each side. In Uzbekistan, the Fergana Valley is home to the important Silk Road cities of Andijan, Kokand, Fergana and Namangan. Its horses were known as heavenly horses and highly valued in China for several centuries. The founder of the Mughal Empire, Babur, was born in this region. Fergana has fascinating stories to reveal and maintains its old traditions of pottery and silk production which make for interesting excursions.

Great Britain

The United Kingdom of Great Britain and Northern Ireland is situated on the British Isles. They lie to the north-west of Europe. The British Isles are separated from the continent by the narrow strait of water which is called the English Channel.

The United Kingdom consists of four parts: England, Scotland, Wales and Northern Ireland. England, the central part, occupies the most of the island of Great Britain. To the north lies Scotland and to the west the third part of the country, Wales, is situated. The fourth part is called Northern Ireland and is located on the second island. Each part has its capital. The capital of England is London, Wales has Cardiff, Scotland has Edinburgh and the main city of Northern Ireland is Belfast.

Great Britain is a country of forests and plains. There are no high mountains in this country. Scotland is the most mountainous region with the highest peak, Ben Nevis. The rivers of Great Britain are not long. The longest rivers are the Thames and the Severn. The capital of the United Kingdom, London, stands on the banks of the Thames. As the country is surrounded by many seas there are some great ports at the seaside: London, Glasgow, Plymouth and others.

Wales is a country of lakes.

Seas and oceans influence the British climate which is not too cold in winter but never hot in summer. Great Britain is a beautiful country with old traditions and good people.

The Government of Great Britain

The legislative branch is in the hands of the Queen and the Parliament (which is the House of Lords and the House of Commons). The executive branch is represented by the Government — the Cabinet headed by the Prime Minister. Her Majesty's Government governs in the name of the Queen. The legislative and the executive branches are combined by the Queen. In fact, the Parliament is controlled by the executive branch, as all the bills pass to the Parliament by the decision of the majority party.

Judicial system is represented by courts. So there is practically no separation of powers. The majority party has the real power in the country.

At the end of the election the Queen appoints the Prime Minister (PM). Normally the leader of the party who wins the election becomes the PM. The office of the Prime Minister was introduced in 1720's. The first PM was Robert Walpole.

The PM chooses about 20 Members of Parliament from his or her party to become the Cabinet of Ministers (or simply the Cabinet), they are called the Secretaries of State. The Ministers are almost always the members of the Commons, also a few are Lords. Cabinet meetings are held in private while the Parliament is sitting.

The British Parliament is of great significance in the political life of the country. It consists of two Houses (or Chambers): the House of Lords and the House of Commons.

The Educational System of Great Britain

The educational system of G.B. is extremely complex and bewildering. It is very difficult to generalize particular types of schools as schools differ from one to the other. The department of education and science irresponsible for national educational policy, but it doesn't employ teacher or prescribe curricula or text books.

Each school has its own board of governors consisting of teachers, parents, and local politicians, members of local community,

businessmen and sometimes pupils. According to the law only one subject is compulsory. It is religious instruction.

Schooling for children is compulsory from 5 to 16, though some provision is made for children under 5 and some pupils remain at school after 16 to prepare for higher education.

The state school system is usually divided into 2 stages (secondary and primary).The majority of primary schools are mixed. They are subdivided into infant schools (ages 5 to 7), and junior schools (ages 7 to11). In junior schools pupils were often placed in A, B, C or D-streams, according to their abilities. Under the pressure of progressive parents and teachers the 11+ examination has now been abolished in most parts of the country. There are several types of schools in G.B. Grammar schools provide an academic cause for selected pupils from the age of 11 to 18. Only those children who have the best results are admitted to these schools. They give pupils a high level of academic education which can lead to the university.

Technical Schools offer a general education with a technical bias and serve those pupils who are more mechanically minded. The curriculum includes more lessons of science and mathematics. Secondary modern schools were formed to provide a non-academic education for children of lesser attainment. The curriculum includes more practical subjects. Comprehensive schools bring about a general improvement in the system of secondary education.

Higher Education in Great Britain

There are 46 universities, 30 polytechnics and numerous colleges for more specialized needs, such as colleges of technology, technical colleges, of arts and agricultural colleges in England and Wales.

They all provide a wide range of courses from lower- level technical and commercial courses through specialized courses of various kinds to advanced courses for those who want to get higher-level posts in commerce, industry and administration, or take up one of a variety of professions.

Courses are a combination of lectures, seminars, tutorials and laboratory work. In a lecture the student is one of a large number of students. He listens to the lecturers, takes notes, and asks no questions. In a seminar he raises problems and discusses them with his fellow students under the direction of one of the teachers. In a tutorial he is accompanied by only a handful of students and discusses his personal academic problems with a teacher.

Study in courses may be full-time and part-time. Full-time education includes sandwich courses in which periods of full-time study (for example, six months) alternate with full-time practical work and training in industry. Full-time and sandwich courses now are an important part of higher education in England and Wales. Part-time education may be taken during the day (for example, one day a week or full-time for short periods) or in the evening only. Particular feature of the higher education is its strong links with commerce and industry.

The system of higher education permits students to get whatever qualification they need.

The USA

The United States of America is one of the greatest countries in the world. It is situated on the North American continent and is washed by three oceans: the Pacific, the Atlantic and the Arctic. The USA borders only on two countries Canada and Mexico.

This great country has a lot of mountains, rivers, lakes. The main mountains are the Appalachians and the Cordilleras. The longest rivers are the Mississippi and the Missouri.

The climate of the country is varied. In the southern part it is subtropical while the northern part has very cold weather in winter.

America has fifty states and one federal District of Columbia where the capital of the country is situated. The capital of the USA is Washington. It stands on the Potomac River in the eastern part of the country.

The main cities are located on the Pacific and Atlantic coasts. New-York is the largest city of the country. Other large cities are San-Francisco, Los-Angeles, Detroit, Chicago, Phoenix and Dallas.

The USA is a country of highly developed industry and agriculture. The main industrial centers are Chicago and Detroit, with their greatest automobile company “General Motors”. There are many farms with various agricultural products. Grain, fruit and vegetables are grown on numerous fields especially in the South.

The USA is a country with great holidays, customs and traditions. It is one of the most beautiful and interesting countries in the world.

Education in the USA

The American system of school education differs from the systems in other countries. There are state public schools, private elementary schools and private secondary schools. Public schools are free and private schools are fee-paying. Each state has its own system of public schools. Elementary education begins at the age of six or seven, when a child goes to the first grade (form). At the age of sixteen schoolchildren leave the elementary school and may continue their education at one of the secondary schools or high schools, as they call them.

The program of studies in the elementary school includes English, Arithmetic, Geography, History of the USA, Natural Sciences and, besides, Physical Training, Singing, Drawing, Wood or Metal Work, etc. Sometimes they learn a foreign language and general history. Besides giving general education some high schools teach subjects useful to those who hope to find jobs in industry and agriculture or who want to enter colleges or universities.

After graduating from secondary schools a growing number of Americans go on to higher education. The students do not take the same courses. During the first two years they follow a basic program. It means that every student must select at least one course from each of the basic fields of study: English, Natural Sciences, Modern Languages, History or Physical Training. After the first two years every student can select subjects according to his professional interest.

The National Government gives no direct financial aid to the institutions of higher education. Students must pay a tuition fee. This creates a financial hardship for some people. Many students have to work to pay their expenses. The Americans place a high value on education. That's why Kennedy said, "Our progress as a nation can be no swifter than our progress in education."

Higher Education in the United States

There are more than two thousand institutions of higher education in the United States with the number of students ranging from fewer than a hundred to 40,000.

Young people who want to enter higher education must meet some requirements. They must have attended a high school for four years. No student is admitted to a college or university without having completed a four-year course in high school. This means that a student who wants to study at the university or college must begin by doing good work in high school. If his grades in high school are satisfactory, he is admitted to a university or college, where he may take a Bachelor’s degree after a four-year course of study. About fifty three per cent of pupils who complete their high school course go on to a college or university.

The first two years in an American college or university differ somewhat from a similar period in a European one. These years in American college are a continuation of secondary education. During this time certain courses in English, social sciences, natural sciences and so on must be completed before a student may begin an intensive study of this special field.

Nearly all of colleges and universities in the United States are coeducational. This means both men and women attend the same university. It is common for students to leave home to study, and only about 15% of all university students live at home while they study. Students may live either on the university campus in one of the dormitories or in private homes in the city in which the University is located.

University life provides a wide variety of recreational activities. Although a great deal of time must necessarily be devoted to study, students find time for recreation. There are football, basketball, and baseball games, teas and dances, concerts, debates, club programs and plays, to mention only a few of the many activities. Most recreational activities are not expensive for the student.

US Academia: Some Explanations

The American academic year usually runs from sometime in September to the end of May. Most, although not all, schools run on a semester system. Achievement is measured by grades which are given on papers and tests during the course of the semester and a final examination at the end of the semester. The final grade is based on all of the work done for the course. At the university level, grades are usually given in the form of letters that correspond to numbers 1-4, with 4 indicating excellence. A grade point average (GPA) is determined at the end of a term to show overall achievement.

The degree programs contain several major courses and a certain number of credit hours is given for every course. A student must take a predetermined number of credit hours in order to graduate. One can drop or add a course in the beginning of the term but not in the middle of the semester. Withdrawing from a course midsemester will be noted on grade records. Students are ecouraged to discuss any academic problems or questions they may have with their academic adviser.

In the classroom, Americans are encouraged to ask questions and to voice their opinions, even if they differ from those of the professor. Also, professors expect papers to be typed and not handwritten.

American and European Systems Compared

Education in America is largely the business of the individual State, not of the Federal Government. Each of fifty states has its own system of education. There is no Minister of Education such as exists in many other countries, no national system of education. In addition to public

schools, academies, colleges and universities, there is a great number of private institutions of education. The Federal Government of the United States doesn't interfere in any way with public education within the States.

Americans tend to study a larger number of subjects than Europeans, in schools, and particularly at the university. Seven subjects are required for a first degree (Bachelor's degree) in many colleges. In the USA wide, and sometimes superficial, knowledge is often valued more than specialization.

The aim of American education is to create a good citizen, rather than a scholar. That is why great emphasis is placed on social duties and obligations, on communicating with other people, and obtaining varied information, which will be of practical use in life.

Famous Universities in the World Today

Some university rankings focus on factors unrelated to academic merit. Thus, some rankings of colleges and universities may give weight to attractiveness of campus, satisfaction of students and alumni, extracurricular benefits (such as top athletics programs), affordability of tuition, and expected income of graduates.

This is not such a ranking. In contrast, if you are looking for a ranking with a focus on academic prestige, scholarly excellence, and sheer intellectual horsepower, then this is the ranking you want. At the universities in this ranking, you will be mixing with the brightest faculty and students in the world, and developing your knowledge and skills so that you yourself will be in a position to join the world's elite academics, scientists, and thinkers.

A cursory examination of our new ranking shows that we are on to something. All the schools in the ranking clearly deserve a place here, as evidenced by their national reputations, as well as by their appearance in other existing rankings (note that are not dismissing other rankings, but merely note their acknowledged vulnerability to gaming). So our new ranking, minimally, passes a sanity check.

But our ranking also offers some genuinely new insights. All the usual suspects are there, to be sure, but their order may seem counter-intuitive. Harvard, as always, is at the top. But the University of Chicago sits at number 3 (often it is ranked around number 10). However, the University of Chicago is not just a great school for the natural sciences, which tend to get pride of place with Shanghai, it is particularly strong in economics (with a slew of Nobel laureates in that field), as well as in professional schools (such as law and medicine), and in the humanities. By contrast, Caltech, which is extremely strong in the natural sciences, is weaker in other disciplines, and thus drops from its usual perch among the top 15 down to number 38.

A lot of interesting patterns emerge as one examines this ranking. Fifty-five of the schools listed are in the United States (52 were in the US in the previous version of this ranking). Of those outside the US, 15 are in the UK, eight in Germany, three in Canada, three in Australia, three in the Netherlands, and one each in 13 additional countries.

An Academic Qualification

A degree is an academic qualification awarded at most universities and colleges upon completion of a higher educational course (a first degree) or a piece of research (higher degrees). If students pass their final exam at the end of a three-year course, they get their first degree. Students with a first degree become Bachelors of Arts or Science, and can put B.A.or B.Sc. after their names. If they want to go a step further and become Master of Arts or Science, they have to write an original paper, or thesis, on some subject based on a short period of research, usually soon after graduation. If students wish to become academics and perhaps teach in a university, then they will work for a higher degree, a Doctor of Philosophy-a Ph.D. For this they will have to carry out some important research work.

The Polytechnic, Wolver Hampton

The Polytechnic, Wolver Hampton, is a large institution in the West Midlands and provides Higher Education for thousands of students from the United Kingdom and beyond. There are only thirty polytechnics altogether in England and Wales and Wolver Hampton was one of the first to be designated. The Polytechnic was originally created in 1969 by uniting the College of Art with the College of Technology. In September 1977 the Dudley College of Education, the Wolver Hampton Teachers' College for Day Students and the Wolver Hampton Technical Teachers' College merged to form a Faculty of Education within the Polytechnic.

The Polytechnic thus is made up of six faculties: Art and Design, Engineering, Humanities, Science, Social Science and Education. Five of these faculties are located on the main campus in the center of Wolver Hampton; the sixth, the faculty of Education, is located at Dudley.

A wide range of degree, postgraduate, diploma and professional courses are offered at all six faculties. All faculties undertake research and all are served by the Polytechnic library. Nearly 4,000 students are on courses for three or four years, ranging from engineering and computer studies to social work courses. These courses are full-time, part-time and sandwich.

The teaching on the courses is partly by lectures but much of time is spent in smaller group work, in seminars and tutorials.

In addition to the higher degrees of MPhil (Master of Philosophy), PhD (Doctor of Philosophy) and MSc (Master of Science) the courses lead to a wide range of first degrees and diplomas.

A high proportion of students live away from home; over 1,300 being accommodated in Polytechnic residential units. The main campus has hostel places for 600 students.

The Polytechnic Students' Union represents students on various Polytechnic Committees. It operates a number of national services for local students (such as accommodation, medical, financial, legal and other problems).The Students' Union organizes and supports a wide range of social, recreational and cultural activities. A large number of clubs and societies are organized by it, which arrange entertainment. There are film, music, drama, poetry, blues and folk societies; rugby,

judo, cross-country running, badminton and horse riding clubs. In addition, there are academic, political and other societies at the Polytechnic.

The Role of Science in Manufacture

Future improvements in productivity are largely dependent on the application of science to manufacturing. This depends in turn on the availability of large numbers of scientifically trained engineers. The higher schools can serve the needs of industry in two ways: by performing basic research and by training well-qualified engineers in the manufacturing field.

There is a growing need for engineers who are familiar with the fundamental problems in metal processing and manufacturing. In the near future many of the engineers will be recent university graduates. A few will come through courses of study in industry. Others, having a basic engineering knowledge, will continue additional studies at colleges to prepare themselves for work in industry. Therefore, an engineer does not finish his education when he receives his diploma, particularly in the fields of interest to tool engineers who are to study new developments constantly.

There are numerous ways in which industry and education can cooperate on problems of common interest. Scientists and research are engaged in work that is intended to provide a scientific approach to many purely industrial problems. These scientists and engineers can make a real contribution to engineering education or academic research. They can, for example, teach advanced engineering courses and they can actively participate in basic and applied research.

Similarly, large and complicated projects of new technologies could well be handled by institute researchers working on practical applications. This would often provide the most efficient approach to the solution of processing problems.

Famous People in the World

There were hundreds of people throughout the history who are left in the memories of millions of people. They are Albert Einstein, George Washington, Princess Diana, Margaret Thatcher, Mahatma Gandhi and many others. Their impact on the world development cannot be underestimated. Most people know Albert Einstein from the picture above their blackboard and only remember that he was considered to be a very stupid person. Although in reality he completely changed the way we perceive time and space, gravity and energy.

George Washington is thought to be the Father of American history. For twenty years he was leading the county to greater future. He believed that hard work, public service and worshiping of God is the key to successful life. Due to his outstanding character he became the first President of the country. No other American is honored the way Washington is.

Before becoming the most beloved person in Great Britain, Princess Diana worked as a cook or a nanny in the kindergarten. When she became a part of a royal family she did a lot of charity. People adored her, although not everything was so good. She was unhappy in her marriage with the Prince. And right before her death she received a divorce. Her story shows that even Prince Charming may be not the right one for you. Diana was killed in a car accident and her death is still a complete mystery. So, learning such stories helps us realize the value of each moment of history. We can learn and develop on the basis of these people's stories and that opens great opportunities for everyone.

Four Industrial Revolutions

The history of mechanical engineering goes back to the time when the man first tried to make machines. We can call the earlier rollers, levers and pulleys, for example, the work of mechanical engineering.

Mechanical engineering, as we understand it today, starts from the first Industrial Revolution.

People have labeled as «revolutions» three episodes in the industrial history of the world and now we are entering the fourth.

The first industrial revolution took place in England between 1760 and 1840. Metal became the main material of the engineer instead of wood, and steam gave man great reserves of power. This power could drive not only railway engines and ships but also the machines which built them.

In the second revolution, from 1880 to 1920, electricity was the technical driving force. It provided power for factories that was easier and cheaper to control than steam. It was marked also by the growing importance of science-based industries such as chemicals and electrical goods, and the use of scientifically-designed production methods such as semi-automatic assembly lines.

The third industrial revolution coincided with the advent of automation-in its inflexible form. In this revolution, the main features were advances in the control of manufacturing processes so that things could be made more cheaply, with greater precision and (often) with fewer people. And this change, which occurred around the middle of this century, also featured a new machine that was to greatly influence the world, the electronic computer.

What is the fourth industrial revolution?

The fourth industrial revolution will be characterized by automated machines that are versatile and programmable and can make different things according to different sets of computer instructions. It will be characterized by flexible, automated machinery, the most interesting example of which is robots.

Great Inventions

Television (1920s) The invention that swept the world and changed leisure habits for countless millions was pioneered by Scottish-born electrical engineer John Logie Baird. It had been realized for some time that light could be converted into electrical impulses, making it possible to transmit such impulses over a distance and then reconvert them into light.

Motor Car (late 19th Century With television, the car is probably the most widely used and most useful of all leisure-inspired inventions.

German engineer Karl Benz produced the first petrol driven car in 1885 and the British motor industry started in 1896. Henry Ford was the first to use assembly line production for his Model T car in 1908. Like them or hate them, cars have given people great freedom of travel.

Electricity The name came from the Greek word for amber and was coined by Elizabeth I's physician William Gilbert who was among those who noticed that amber had the power to attract light objects after being rubbed. In the 19th century such great names as Michael Faraday, Humphry Davy, Alessandro Volta and Andre Marie Ampere all did vital work on electricity.

Photography (early 19th Century) Leonardo da Vinci had described the camera obscure photographic principle as early as 1515. But it was not until 1835 that Frenchman Louis Daguerre produced camera photography. The system was gradually refined over the years, to the joy of happy snappers and the despair of those who had to wade through friends' endless holiday pictures.

Telephone (1876) Edinburgh-born scientist Alexander Graham Bell patented his invention of the telephone in 1876. The following year, the great American inventor Thomas Edison produced the first working telephone. With telephones soon becoming rapidly available, the days of letter-writing became numbered.

Computer (20th Century) The computer has been another life-transforming invention. British mathematician Charles Babbage designed a form of computer in the mid-1830s, but it was not until more than a century later that theory was put into practice. Now, a whole generation has grown up with calculators, windows, icons, computer games and word processors, and the Internet and e-mail have transformed communication and information.

Aero plane The plane was the invention that helped shrink the world and brought distant lands within easy reach of ordinary people. The invention of the petrol engine made flight feasible and the American Wright brothers made the first flight in 1903.

The Engineering Profession

Engineering is one of the most ancient occupations in history. Without the skills included in the broad field of engineering, our present-day civilization never could have evolved. The first toolmakers who chipped arrows and spears from rock were the forerunners of modern mechanical engineers. The craftsmen who discovered metals in the earth and found ways to refine and use them were the ancestors of mining and metallurgical engineers. And the skilled technicians who devised irrigation systems and erected the marvelous buildings of the ancient world were the civil engineers of their time.

Engineering is often defined as making practical application of theoretical sciences such as physics and mathematics. Many of the early branches of engineering were based not on science but on empirical information that depended on observation and experience.

The great engineering works of ancient times were constructed and operated largely by means of slave labor. During the Middle Ages people began to seek devices and methods of work that were more efficient than human. Wind, water, and animals were used to provide energy for some of these new devices. This led to the Industrial Revolution which began in the eighteenth century. First steam engines and then other kinds of machines took over more of the work that had previously been done by human beings or by animals. James Watt, one of the key figures in the concept of horsepower to make his customers understand the amount of work his machines could perform.

Since the nineteenth century both scientific research and practical application of its results have escalated. The mechanical engineer now has the mathematical ability to calculate the mechanical advantage that results from the complex interaction of many different mechanisms. He or she also has new and stronger materials to work with and enormous new sources of power. The Industrial Revolution began by putting water and steam to work; since then machines using electricity, gasoline, and other energy sources have become so widespread that they now do a very large proportion of the work of the world.

The Wankel Engine

The Wankel engine is a form of heat engine that has a rotary piston. In other words,instead of going up and down the Wankel piston rotates in the cylinder.Boht cylinder and piston are quite different in shape from those of conventional engines. The Wankel piston is triangular with curved sides; the cylinder is roughly oval in shape. The piston has an inner door which is liked through an eccentric gear to the output shaft. The other end of the door is toothed and engaged with a stationary gear fixed to the cylinder end. Their arrangement ensures that the piston follows an elliptical path round the cylinder so that the apexes of the piston, which carry gastight seals, are always in contact with the inside surface of the cylinder

The piston thus forms three crescent-shaped spaces between itself and the cylinder wall, which vary in size as the piston rotates. Fuel enters the cylinder through the inlet port when one of these spaces is increasing in size. The fuel trapped in this section is then compressed by the turning piston and ignited by the sparking plug. The expanding gases subject the piston to a twisting moment which makes the piston revolve further until the exhaust gases escape through the exhaust port. A fresh charge is then induced into the cylinder. Meanwhile the same process is being repeated in the other two spaces between the piston and the cylinder.

The Wankel engine has many advantages over the reciprocating piston engine. Fewer moving parts are necessary because it produces a rotary movement using a connecting rod and a crankshaft. Because of this rotary movement it has vibration. In addition it has no valves, it is smaller and lighter than conventional engines of the same power, and it runs economically on diesel and several other fuels.

Engine

An engine produces power by burning air and fuel. The fuel is stored in a fuel. The fuel tank is connected to a fuel pipe. The fuel pipe carries the fuel to a fuel pump. The fuel pump is connected to the carburetor. The fuel pump pumps the fuel into the carburetor. In the carburetor the

fuel is mixed with air. The fuel and air are drawn into the engine cylinder by the piston. Then the fuel and air are compressed by the piston and ignited by the spark plug. They burn and expand very quickly and push the piston down. Then the power is produced. The burned fuel and air are expelled from the cylinder by the piston.

The flow of gases into and out of the cylinder is controlled by two valves. There is an inert valve allowing fresh fuel mixture into the cylinder and an exhaust valve which allows the burnt gases to escape.

There are two classic engine operating cycles:

the four-stroke cycle;

the two-stroke cycle.

The complete four-stroke cycle comprises:

the induction stroke (the piston moves downwards):

the compression stroke(the piston moves upwards);

the power stroke (the piston moves downwards);

the exhaust stroke (the piston moves upwards).

Machines and Work

Defined in the simplest terms a machine is a device that uses force to accomplish something. More technically, it is a device that transmits and changes force or motion into work. This definition implies that a machine must have moving parts. A machine can be very simple, like a block and tackle to raise a heavy weight, or very complex, like a railroad locomotive or the mechanical systems used for industrial processes.

A machine receives input from an energy source and transforms it into output in the form of mechanical or electrical energy. Machines whose input is a natural source of energy are called prime movers. Natural sources of energy include wind, water, steam, and petroleum. Windmills and waterwheels are prime movers; so are the great turbines driven by water or steam that turn the generators that produce electricity; and so are internal combustion engines that use petroleum products as fuel. Electric motors are not prime movers, since an alternating current of electricity which supplies most electrical energy does not exist in nature.

Terms like work, force, and power are frequently used in mechanical engineering, so it is necessary to define them precisely. Force is an effort that results in motion or physical change. If you use your muscles to lift a box you are exerting force on that box. The water which strikes the blades of a turbine is exerting force on those blades, thereby setting them in motion.

In a technical sense work is the combination of the force and the distance through which it is exerted.

To produce work, a force must act through a distance. If you stand and hold a twenty-pound weight for any length of time, you may get very tired, but you are not doing work in an engineering sense because the force you exerted to hold up the weight was not acting through a distance. However, if you raised the weight, you would be doing work.

Power is another term used in special technical sense in speaking of machines. It is the rate at which work is performed.

In the English-speaking countries, the rate of doing work is usually given in terms of horsepower, often abbreviated hp. You will remember that expression resulted from the desire of inventor James Watt to describe the work his steam engines performed in terms that his customers could easily understand.After much experimentation,he settled on rate of 33,000 foot-pounds per minute as one horsepower.

In the metric system power in terms of watts and kilowatts.The kilowatt,a more widely used term, equals a thousand watts or approximately 1 1/3 horsepower in the English system.

Components of the Automobile

Automobiles are trackless, self-propelled vehicles for land transportation of people or goods, or for moving materials. There are three main types of automobiles. They are passenger cars, buses and lorries (trucks).The automobile consists of the following components: a)the engine; b)the framework: c)the mechanism that transmits the power-engine to the wheels; d)the body.

Passenger cars are, as a rule, propelled by an internal combustion engine. They are distinguished by the horse-power of the engine, the

number of cylinders on the engine and the type of the body, the type of transmission, wheelbase, weight and overall length.

There are engines of various designs. They differ in the number of cylinders, their position, their operating cycle, valve mechanism, ignition and cooling system.

Most automobile engines have six or eight cylinders, although some four-, twelve-, and sixteen-cylinder engines, are used. The activities that take place in the engine cylinder can be divided into four stages which are called strokes. The four strokes are: intake, compression, power and exhaust. «Stroke» refers to the piston movement. The upper limit of piston movement is called top dead center, TDC. The lower limit of piston movement is called bottom dead center, BDC.A stroke constitutes piston movement from TDC to BDC or from BDC to TDC. In other words, the piston completes a stroke each time it changes the direction of motion.

Engine Operation

An automobile, powered by a petrol engine, begins to operate when the driver turns a flywheel connected to the engine crankshaft. As the crankshaft revolves, a mixture of fuel and air is drawn from a carburetor into the engine cylinders. The ignition system provides the electric sparks that ignite this mixture. The resultant explosions of the mixture turn the crankshaft, and the engine starts moving. By regulating the flow of the fuel and air with a throttle, the driver controls the rotational speed of the crankshaft.

Cooling, electrical ignition and lubrication systems are of great importance for the good performance of a car. The lights, radio and heater add to the flexibility, comfort and convenience of the car. The indicating devices keep the driver informed as to engine temperature, oil pressure, amount of fuel, and battery charging rate.

Brakes are of drum and disk types. The steering system consists of a manually operated steering wheel which is connected by a steering column to the steering gear from which linkages run to the front wheels. It is difficult to turn the steering wheel, and special hydraulic power

mechanisms are used to lessen this effort. Suitable springingis used against shocks. These are leaf springs, coil springs, torsion bars and air suspensions.

Diesel Engines

The oil engine (diesel engine)is also a form of internal combustion engine. It has the usual arrangement of cylinder, piston, connecting rod, crank, inlet and exhaust valves as we find in petrol engine. In place of carburetor and sparking plug it has an injection pump and a fuel injection valve (injector).Unlike spark-ignition engines it uses the heat of compression to fire the fuel and is, therefore, called compression-ignition engine.

It utilizes a fuel known as diesel oil, which is forced in the form of a fine spray through a suitable nozzle directly into the combustion space. No mixture of fuel and air is introduced into the cylinder; the compression-ignition (CI)engine draws in pure air only. This air is then compressed by the ascending piston to a high pressure. As a result of it the temperature of the air is raised considerably so that the fuel oil injected into the cylinder ignites rapidly. Thereafter the gaseous products expand providing the energy for the power stroke.

The high-output oil engines are nearly all of two-stroke type. The charge is filled into the cylinder by means of a blower which assists both the intake and exhaust processes. One cycle completed within one revolution, i.e. in two strokes-compression and expansion.

Air-cooled Engines

All vehicle engines are air-cooled to some degree. Even in water-cooled engines heat is transmitted first from cylinder to water and afterwards, in the radiator, from water to air. This method of cooling is not difficult to accomplish, because the heat taken off the hot cylinder walls by water can be distributed without difficulty upon the large cooling surface of the radiator, and so easy transmission of air is made possible.

Reciprocating engines used in aircraft are almost entirely air-cooled. Aircraft engines cooled by air are manufactured today in sizes ranging from 50 to 3500 hp and they superseded water-cooled engines. The principal advantages of air-cooled aircraft engines are low weight, and greater reliadilim reliability in operation. Modern motor-cycles are also designed almost exclusively with air-cooled engines.

New designs of air-cooled vehicle engines are notable for their easy maintenance, reliability and economical operation.

Power Engineering

Volta made his experimental cell in 1800,producing for the first time a steady reliable electric current. During the nineteenth century, the development of practical applications of electrical energy advanced rapidly. The first major uses of electricity were in the field of communications-first for the telegraph and the telephone. They used not only electric current but also electromagnetic effects.

Thomas Edison’s invention of the electric light bulb was perhaps the most momentous development of all, but not because it was such a unique invention. It was momentous because it led to the creation of an electric power system which has since reached into nearly every corner of the world. Actually, other people were working simultaneously on the same problem, and Edison’s claim to the invention was disputed. Perhaps Edison’s most important claim to fame is his pioneering work in engineering, which helped to provide for New York City in 1882.

The application of electricity has grown to the point where most of us lead electrified life, surrounded by a variety of devices that use electric energy. Less visible, but probably more important, are the thousands of ways industry has put electric energy to work. The direct-current machine is one of the most important ways.

Turbines

The turbine is a machine for generating mechanical power from the energy of the stream of fluid. Steam, hot air or gaseous products of combustion, and water are the most widely used working fluids.

A steam turbine may be defined as a form of heat engine in which the energy of the steam is transformed into kinetic energy. It consists of the following fundamental parts: a) a casing or shell containing stationary blades: c) a set of bearings; d) a governor and valve system for regulating the speed and power of the turbine. The main types of steam turbines are axial flow turbines and radial-stage turbines.

The reciprocating steam engine came into its own during the nineteenth century, when it found greatest use in mills, locomotives and pumping systems. The modern steam turbine, developed last century, is rapidly replacing the reciprocating engine for large installations. Gas is used as the working fluid in gas turbines. The basic theory underlying their design and their operating characteristics is identical with that for steam turbines. The energy of water is converted into mechanical energy of a rotating shaft in hydraulic turbines. Power may be developed from water by three fundamental processes: by action of its weight, of its pressure or of its velocity; or by a combination of any or all three.

Boilers

A boiler is a closed vessel in which water, under pressure, is transformed into steam by the application of heat. Open vessels and those generating steam at atmospheric pressure are not considered to be boilers. The furnace converts the chemical energy of the fuel into heat. The function of the boiler is to transfer this heat to the water in the efficient manner.

Progress in steam-boiler development has been rapid. The first boilers were very crude affairs, as contrasted with our present-day standards. The greatest number of contributions has been made in the last half century. The field of application is diversified. Boilers are used for heating, supplying steam for processes, furnishing steam to operate engines, etc.

Maintaining the correct boiler water level is the most important duty of the boiler operator. It is of the utmost importance that the manufacturer supply suitable and reliable devices for indicating the water level. Coal as well as liquid and gaseous fuels are used for boiler

firing. The ideal boiler must be of correct design, sufficient steam and water space, and good water circulation.

Electric Motors

There is a wide variety of d.c. motors. There are shunt motors, series motors, synchronous motors, induction motors, single-,two-,and three-phase motors. They are used to drive various machines.

Direct-current motors are of three principal kinds, and are named according to the manner in which their field coils are connected to the armature. They are named respectively: series, shunt, and compound.

In the series motors the field windings and armature are connected in series with each other. All the current which passes through the armature passes through the field coils. The field windings are therefore composed of a few turns of thick wire. Starting under heavy load, a series motor will take a large current to provide the huge torque required.

The field coils of shunt motors are connected direct across the brushes; hence they have the full voltage of the mains applied to them. The shunt motor may be called a constant speed motor, and is suitable for driving machine tools, lathes, wood-working machines and any machines requiring a steady speed.

A compound motor has both shunt and series field windings and therefore partakes of the nature of both types of motors.

A. C. Electric Motor

Motors for alternating-current circuits may by either single-phase or polyphase (two-or three-phase).They may again be divided into two kinds, named respectively:1. Synchronous; 2. Non-or asynchronous, ordinarily called induction motors.

The most widely used a.c. motor is the induction motor. It has two main parts: a)the stationary winding or stator, which sets up a rotating magnetic field, and b)the rotating part of the motor, i.e. the rotor. The rotor of a commercial a.c. motor consists of an iron core with large copper bars placed in sets around the circumference and connected at both ends to copper rings. This is called a squirrel-cage rotor. When a

rotor is placed in a rotating magnetic field, a large current is induced in it.

A. C. motors are exactly similar in construction to a.c. generators and may be called inverted alternators, since the same machine may be used as either a generator or motor.

Synchronous motors are very suitable for large powers, where the machine can be started up without load, and once started run for long periods.

For supplying direct-current power networks, the supply comes first from an alternating-current source and is converted to direct current by synchronous convertors or motor-generator sets.

New Energy from Old Sources

The resources of fossil fuel which made the industrial revolution possible and have added to the comfort and convenience of modern life were formed over a period of 600-million years. We will consume them in a few hundred years at current rates.

But energy is available to use in practically unlimited quantities from other sources. Large amounts of energy can be received from ocean tides and currents, from huge underground steam deposits, from the power of wind and from the heat of the Sun.

Most solar-heating systems coming on the market use a black surface to absorb the Sun’s heat. Engineers cover the surface with glass which lets in the rays, but holds heat. The heat is transferred to water that runs through small pipes. The hot water is then circulated through the house. It is estimated that 40 million new buildings will be heated by solar energy by the year 2000.

The solar cell is another way to produce power from the Sun. It converts sunlight directly into electricity. These cells are used with great success in the space program, but remain far too expensive for wide-spread application.

Putting the wind to work researchers is showing great interest in the age-old windmill. Several big companies are now studying windmills ranging from 100 to 2,000 kilowatts. The smallest would provide

sufficient electricity to power several homes; the largest could provide electricity to a small village.

Japan Stores Sunlight in Crystals

Japan has managed to store the Sun's energy for 61 days in an important development in the use of solar power. Scientists have produced a stable chemical compound to store the energy.

The new compound takes the form of a yellow crystal. It changes its molecular structure when exposed to sunshine. When a small catalyst of silver was applied to it the substance reverted to its original molecular structure, generating heat at any required moment.

If produced in liquid form, the compound would retain the energy for 61 days without a boost of sunshine.

The temperature of the compound does not rise when solar energy is stored. The energy takes the form of molecular change at normal temperatures. In this way energy is not lost through the dissipation of heat.

Initial tests showed that 2.2 lb. of the substance would conserve 92,000 calories. The research team said a solar heater with a surface of a square meter could store 85 million calories of energy a year. The compound could also be transported while it stored energy.

If the compound was produced in solid form, it could store energy for indefinite periods if the silver catalyst was not applied. However, it would have to be produced in a more impure liquid for practical use.

The new compound could be used to store energy for heating, cooling and eventually the generation of electrical power. There was little wastage and no pollution.

Forms and Functions of Architecture

Architecture is the art and the science of building. Without consideration of structural principles, materials, and social and economic requirements a building cannot take form, but unless aesthetic quality also is inherent in its form the building cannot be considered as a work of architecture.

From the very beginnings of architecture many skills, systems, and theories have been evolved for the construction of the buildings that have housed nations and generations of men in all their essential activities, and writing on architecture is almost as old as writing itself. The oldest book we have that sets forth the principles upon which buildings should be designed and aims to guide the architect is the work of Marcus Virtruvius Pollio, [‘ma:k s vit’ruvi s p ‘liou] written in the first century B.C.

Architecture is an art; its contemporary expression must be creative and consequently new. The heritage of the past cannot be ignored, but it must be expressed in contemporary terminology.

From the History of Sewerage

The first engineer who made a comprehensive study of metropolitan sewerage needs thus described the conditions of London basements and cellars in 1847: «There are hundreds, I may say thousands of houses in this metropolis which have no drainage whatever and the greater part of them have stinking overflowing cesspools. And there are also hundreds of streets, courts and alleys that have no sewers». After two outbreaks of cholera a royal commission was appointed to inquire into sanitary improvements of London. In 1855 Parliament passed an act for the better local management of the metropolis which laid the basis for the sanitation of London.

In the continent a marked progress in sewerage began in 1842 when a severe fire destroyed the old part of the city of Hamburg. The portion ruined was the oldest and it was decided to rebuild it according to the modern ideas of convenience. As a result Hamburg was the first city which had a complete systematic sewerage system throughout built according to modern ideas.

Forestry

The main directions in the economic development of Russia in forestry are: to improve the reproduction and utilization of forest resources, to use forest lands more intensively, to pay more attention to

planting belts, to increase control over the rational use of forest resources and protect forests against fires, pests and diseases.

Graduate students from the department of forest engineering work as production engineers in the sphere of logging mechanization, wood felling operations and transportation of timber by land and water.

In order to be an educated and qualified engineer it is necessary to study about 40 subjects of general education and engineering.

Russian engineering supplies the timber industry with various machineries: gasoline-motor-powered saws, branch cutters, loaders of original design, heavy-duty motor trains, and semiautomatic lines with automated sorting transport belts.

The Siberian Cedar

The Siberian cedar grows to the east of the Urals. It has soft wood with beautiful texture. The world does not know better material for pencils.

One hectare of cedar forest annually produces up to five tons of nuts which are four times as expensive as cedar wood.

Cedar oil is as good as the best varieties of olive oil. The Siberian cedar occupies 50 million hectares - a territory twice as large as Britain.

Larch

In the world there are 10-12 species of larch (according to some other sources there are 20 species).

The European larch grows usually upon dry uplands. It ranges from the mountains of Southern Siberia.

The average height of the tree is from 30 to 35 m. The wood of the larch is hard and rich in resin. Its bark contains tannin.

Larch is a very valuable tree. According to some source, the larch piles on which part of old Venice rests to this day, were brought from Russian forests.

The builders of English and Spanish ships considered larch to be the best material for planking (обшивка) ships.

Russian carpenters used larch for dams. Joiners (duradgorlar) made mechanisms for flour-mills.

In addition, larch is a very beautiful tree. It grows in gardens and parks in many towns of our country.

Fir (Spruce)

There are about 40 species of fir in the world. They occur in Europe, Asia and North America. In the forests of Russia there are 8 species of fir.

The firs that grow in the Northern and European parts of Russia are commonly 20 m to 50 m high. They have straight trunks up to 1 m in diameter.

The fir grows slowly during 10-15 years, and then it grows faster. When it is 100-120 years old it again begins to grow slowly. It can reach the age of 300 years. Its wood is white, light and soft.

Especially beautiful is the species of fir that grows in the Caucasus. It grows in the mountains at the height of 1,500 meters or more. Some trees reach the age of 500 years. One big tree can yield up to 45 cubic meters of wood.

There are a few forest nurseries (plantations) in that region. Tree plantations produce 22 million seedlings (саженцы) of valuable species each year.

Heat Power Engineering

My future specialty is heat-engineering. We use heat to do a lot of useful things to heat our homes, to transport us from one place to another and so on. Scientists and specialists of our country made great contribution to the development of this branch of energetics.

The present thermal power stations are not ecologically pure. So scientists try to replace the conventional fuel (gas, oil, coal) with adequate one such as tidal energy, wind energy, solar energy which have no environmental pollution effect. It is planned to construct an experimental thermal power station powered by hot subterranean water.

The hot subterranean water is now being used for heating blocks of flats and hothouses and for medical purposes in Kamchatka, for instance.

The time is not far off when this cheap thermal energy will be widely used in the economy making possible to employ such valuable raw materials as coal, oil, gas mainly in the chemical industry.

The main task facing heat power engineers is to increase many times the capacity of the thermal power plants and to equip them with high-capacity heat-engineering units.

Power Supply. Electric Systems and Networks

My future specialty is power supply to industrial enterprises, cities and rural regions. I am also trained to work in the field of electrical systems and networks.

The power engineers have to do with many problems, for example, with the voltage at which power must be generated, and then there are the problems of controlling, the phase, the frequency and the loads of power systems.

The power engineers are also concerned with feeding sources, step-up and step-down electric substations, various auxiliary installations and erections as well as with feeding distribution electric grids.

Industry, transport, agriculture are the biggest consumers of electricity. The more we develop industry, transport, and agriculture the more we need electric power.

The main task of electric engineers is to look for efficiency improvements of power sources as well as for new power distribution systems.

Civil Engineering

My future specialty is civil engineering. The term «civil engineering» is usually applied to such as excavation and embankment, the construction of railways, canals,aqueducts, pipelines, the reclamation of land, building construction. The history of building is as old as civilization itself.

Architecture has an origin in the primitive efforts of mankind to provide protection against bad weather and enemies in rock, caves, huts and tents. Civil engineering developed with the rise of Rome in the 6-th century B.C. Romans built sewers, conduits and aqueducts, roads and bridges.

Town building was based on camp tradition. Some towns arose out of army camps. The oldest building materials are: timber, stone and brick. Now steel, aluminum, iron, plastics, concrete are introduced into building. A town of future should be convenient, beautiful and well planned. Town planning takes into consideration the siting of industrial enterprises, residential areas, the laying out of highways, the organization of municipal transport and many other aspects.

The construction engineer must be able to draw together many types of engineering knowledge and many different engineering techniques.

Motor Transport

I study at the faculty of the Mechanical Controllable systems. My future specialty will be motor transport.

Motor transport is a kind of transport for carrying freight and passengers along rail less roads on short and long distances.

Now we can't imagine our life without motor transport. The main tasks of transport are to ensure timely, high-quality and full satisfaction of the needs of the economy and the population in conveyance.

There are the following groups of autos: transport vehicles, special-duty Lorries and racing cars. Transport vehicles are for carrying cargo and people they are divided into cargo carrying cars and buses. Racing cars are meant for contests.

The auto consists of the following components: a)the engine; b) the framework; c) the mechanism that transmits the power from engine to the wheels; d) the body.

Now motor industry continues developing and perfecting. General vehicle configuration becomes very important area of change. The cars are expected to be smaller, lighter, and more efficient. Low pollution automotive emissions are technologically possible. Modern vehicles are

equipped with electronic devices. Automatic control of automobiles and trucks on highway becomes a practical reality.

I believe that despite environmental, sociological, technological considerations an interesting future lies ahead for the automotive industry.

Road Building Machinery

My future specialty is road building machinery. In order to become an educated specialist I am to study the following subjects: physics, chemistry, mathematics, social sciences, foreign language, and strengthof materials, electrical engineering, computer-programming and many others.

I believe that the economic prosperity of the country is closely connected with the adequate and efficient road network.

A great variety of different kinds of machinery is found in highway construction. The work is divided into several technologically completed processes. The building of highways connected with a great volume of earth work is one of the most difficult, most labor-consuming processes. This type of work is produced by means of bulldozers, scrapers, grades and excavators. They are divided into three classes. The first class includes bulldozers of different types which carry out the work with the aid of a blade mounted on a tractor of either crawler or a wheel type. Scrapers belong to the second class of earth-moving machines. As for revolving shovels they belong to the third class.

All modern plants are highly efficient machines, which are built to give years of service if properly used, handled and maintained.

And I’ll do all my best to master my profession to become a qualified specialist.

Foydalanilgan adabiyotlar ro’yxati

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15. Inglizcha-Ruscha lug’atlar.

TABLE OF IRREGULAR VERBS

Infinitive	Past Indefinite	Participle II	Translation
to be	was, were	been	bo'lmoq, bor bo'lmoq
to become	became	became	bo'lmoq, bo'lib qolmoq
to begin	began	begun	boshla(n)moq
to break	broke	broken	sindirmoq, buzmoq
to bring	brought	brought	keltirmoq, olib kelmoq
to build	built	built	qurmoq
to burn	burnt	burnt	yondirmoq, yonmoq
to buy	bought	bought	sotib olmoq
to choose	chose	chosen	tanlamoq
to come	came	come	kelmoq
to cut	cut	cut	kesmoq, qirqmoq
to do	did	done	qilmoq, bajarmoq
to draw	drew	drawn	tashimoq, tortmoq
to drink	drank	drunk	ichmoq
to drive	drove	driven	haydamoq, boshqarmoq
to eat	ate	eaten	yemoq
to fall	fell	fallen	yiqilmoq, pastga tushmoq
to feel	felt	felt	his qilmoq
to fight	fought	fought	kurashmoq
to find	found	found	topmoq
to fly	flew	flown	uchmoq
to forget	forgot	forgotten	unutmoq
to get	got	got	olmoq, erishmoq, kelmoq
to give	gave	given	bermoq
to go	went	gone	bormoq
to grow	grew	grown	o'smoq, o'stirmoq
to hang	hung	hung	osib qo'ymoq, ilmoq
to have	had	had	ega bo'lmoq

to hear	heard	heard	eshitmoq
to hold	held	held	ushlamoq, tutib turmoq
to keep	kept	kept	ushlamoq, saqlamoq
to know	knew	known	bilmoq
to lead	led	led	olib bormoq, boshqarmoq
to learn	learnt, learned	learnt, learned	o'qimoq, o'rganmoq
to leave	left	left	ketmoq, qoldirmoq
to let	let	let	ruxsat bermoq
to light	lit	lit	yoritmoq, yoqmoq
to lose	lost	lost	yo'qotmoq, yutqizmoq
to make	made	made	qilmoq, tuzmoq
to mean	meant	meant	anglatmoq
to meet	met	met	uchratmoq, tanishmoq
to put	put	put	qo'ymoq
to read	read	read	o'qimoq
to ring	rang	rung	qo'ng'iroq qilmoq
to run	ran	run	yugurmoq
to say	said	said	gapirmoq, aytmoq
to see	saw	seen	ko'rmoq
to sell	sold	sold	sotmoq
to send	sent	sent	yubormoq, jo'natmoq
to set	set	set	joylashtirmoq, qo'ymoq
to show	showed	shown	ko'rsatmoq
to shut	shut	shut	yopmoq
to sing	sang	sung	ashula aytmoq, kuylamoq
to sit	sat	sat	o'tirmoq
to sleep	slept	slept	uxlamoq
to speak	spoke	spoken	gapirmoq
to spend	spent	spent	sarflamoq, o'tkazmoq
to stand	stood	stood	turmoq
to swim	swam	swum	suzmoq

to take	took	taken	olmoq
to teach	taught	taught	o’rgatmoq, o’qitmoq
to tell	told	told	aytmoq, demoq,
to think	thought	thought	o’ylamoq
to throw	threw	thrown	tashlamoq
to understand	understood	understood	tushunmoq, anglamoq
to win	won	won	yutmoq, g’alaba qilmoq
to write	wrote	written	yozmoq

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