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### «САНКТ-ПЕТЕРБУРГСКИЙ ГОСУДАРСТВЕННЫЙ ЛЕСОТЕХНИЧЕСКИЙ УНИВЕРСИТЕТ имени С. М. Кирова»

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# ИНОСТРАННЫЙ ЯЗЫК КОНТРОЛЬНЫЕ ЗАДАНИЯ ПО АНГЛИЙСКОМУ ЯЗЫКУ

Практикум для студентов заочной формы обучения направлений подготовки 35.03.02, 15.03.02, 23.03.03, 27.03.01, 27.03.04, 09.03.02, 18.03.01, 18.03.02, 20.03.01, 05.03.06, 06.03.01, 35.03.01

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Иностранный язык. Контрольные задания по английскому языку: практикум для студентов заочной формы обучения направлений подготовки 35.03.02, 15.03.02, 23.03.03, 27.03.01, 27.03.04, 09.03.02, 18.03.01, 18.03.02, 20.03.01, 05.03.06, 06.03.01, 35.03.01 / Ю. М. Бобрицкая, И. Ю. Рябишникова, Е. Д. Цымбулова. — СПб.: СПбГЛТУ, 2018. — 52 с.

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Настоящий практикум составлен для самостоятельной и аудиторной работы бакалавров 1-го курса направлений подготовки 35.03.02, 15.03.02, 23.03.03, 27.03.01, 27.03.04, 09.03.02, 8.03.01, 18.03.02, 20.03.01, 05.03.06, 06.03.01, 35.03.01.

Учебный материал охватывает основные грамматические и лексические темы, способствующие развитию навыков и умений, необходимых для профессиональной коммуникации.

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#### Введение

Настоящий практикум для студентов заочной формы обучения направлений подготовки 35.03.02, 15.03.02, 23.03.03, 27.03.01, 27.03.04, 09.03.02, 18.03.01, 18.03.02, 20.03.01, 05.03.06, 06.03.01, 35.03.01 предназначен для самостоятельной и аудиторной работы. Студентам рекомендуется выполнять свой вариант контрольной работы непосредственно в данном издании, в середине которого содержится рабочая тетрадь, которую студенту необходимо аккуратно отделить, заполнить выполненными заданиями и сдать на проверку на кафедру иностранных языков.

В ходе аудиторной работы остальные варианты контрольных работ могут быть использованы как упражнения для отработки основных грамматических тем, а также как учебный материал для ознакомления с основными профессиональными задачами и проблемами работников лесного комплекса.

Перед выполнением контрольных заданий студентам рекомендуется ознакомиться с грамматическими комментариями в теоретической части практикума.

#### 1. КОНТРОЛЬНАЯ РАБОТА ДЛЯ СТУДЕНТОВ, ОБУЧАЮЩИХСЯ ПО НАПРАВЛЕНИЯМ ПОДГОТОВКИ 35.03.02, 15.03.02, 23.03.03, 27.03.01, 27.03.04

#### Вариант № 1

### ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите и подчеркните существительные (одной чертой) и глаголысказуемые (двумя чертами) в следующих предложениях, переведите предложения:

- 1. Our University was founded in 1803 in Tzar's Village the place which is now called Pushkin.
- 2. A few years ago the faculty of Forest Machines was reorganized into the Institute of Technological Machines and Forest Transport.
- 3. The first building of our University was constructed in 1826 to the design of architect A. D. Nellinger.

### ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Operation, dangerous, transportation, importance, careless, easily, worker, serious, combination, merchantable, early, structure, useful, windy, plentiful.

### ЗАДАНИЕ 3. Письменно переведите текст:

The Principal Steps in Harvesting Timber Crops

The harvesting operation consists of the following principal steps:

- 1. Selection of trees for cutting.
- 2. Cutting, which includes felling, limbing and bucking.
- 3. Bunching, or stump piling, preliminary to skidding or yarding.
- 4. Skidding, or forwarding, to the landing or loading point.
- 5. Loading.
- 6. Transportation from the forest.

Each of the above operations can be performed in many different ways.

The hauling of a product from forest to a mill may be by truck, railroad, barge, raft, stream driving, cargo vessel, or by combinations thereof.

Loading must be adapted to both hauling and skidding methods and can be by animal power, by heavy-duty loaders, by hand labour, or, in some cases, by the use of gravity. Skidding or yarding can be by animal power, by tractors, by overhead or ground-lead cable system, by gravity, or, in rare instances, by hand.

Cutting involves severing the tree to be felled near the ground and then cutting the bole into the desired products, such as logs, pulpwood, poles, piles, ties, veneer bolts, fuel, wood, or mine timbers. This may be done by one-, two-, or three- man crews using handsaws or power-saws of several types.

The use of wide range of operating methods makes the harvesting of timber possible under almost any conditions found in nature. However, the choice of methods for a given forest is limited by certain factors. Therefore in planning a harvesting operation much attention has always been paid to the items which have a bearing on the choice of operating methods: the topography, the climate, and the location.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. The use of wide range of operating methods **makes** the harvesting of timber possible under almost any conditions.
- 2. In planning a harvesting operation much attention **has** always **been paid** to topography, climate and the forest location.
- 3. When the territory **is being prepared** for skidding roads construction, low-grade timber is used to reinforce boggy areas.
  - 4. At present two logging teams are working on the site.
  - 5. In rather rare instances the timber in a forest **is** uniformly **distributed**.
- 6. Timber cruise **has been carried out** recently to determine the volume, species, distribution and quality of timber.

ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. Loading must be adapted to both hauling and skidding methods.
- 2. One logging team can perform both felling and bucking.

### ЗАДАНИЕ 6. Подберите описания лесозаготовительных операций:

	Operation	Definition		
1.	Felling	a.	transporting trees or parts of trees by trailing or	
			dragging them.	
2.	Cutting	b.	gathering and arranging trees or parts of trees in small piles.	
3.	bucking=slashing	c.	removing branches from trees.	
4.	skidding	d.	cutting standing trees, causing them to fall as a result of the cutting.	
5.	thinning	e.	cutting off the top of a tree at a predetermined, minimum diameter.	
6.	limbing	f.	removing limbs from trees.	
7.	loading	g.	cutting felled and limbered trees into lengths.	
8.	bunching	h.	initial hauling of a log from the stump to a collection point.	
9.	transportation	i.	removing immature trees.	
10.	logging	j.	removing merchntable trees (contrasts with cuttings, which remove immature trees).	
11.	yarding	k.	the process, work, or business of cutting down trees and transporting the logs to sawmills.	
12.	timber harvesting	1.	picking up trees or parts of trees from the ground or from a vehicle, transporting them,	
13.	topping	m.	and then piling them into another vehicle (such as a highway, logging truck or rail car). removal of a proportion of the stand's trees to allow the remaining trees better growing conditions.	

### Вариант № 2

### ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите и подчеркните существительные (одной чертой) и глаголысказуемые (двумя чертами) в следующих предложениях, переведите предложения:

- 1. Four buildings of our University are surrounded by a beautiful park.
- 2. In 1811 the Forest Institute was transferred from Tzar's village to Lesnoye, St. Petersburg where it is situated now.
- 3. Neither correspondence students nor part time students are paid state grant.

### ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Operation, actual, dangerous, important, condition, properly, worker, hindrance, organization, efficiency, extremely, structure, useful, rainy, economical.

#### ЗАДАНИЕ 3. Письменно переведите текст:

Organization of Cutting Operations

Felling the trees selected for cutting is the first stage of the actual manufacturing process. It is an extremely important step because how it is done affects the value of the trees for the products they will make, the efficiency of the operation, and the future condition of the forest itself after the trees have been felled. To perform felling properly a cutting crew is needed. It may consist of one man or several, and the crew may perform both felling and bucking, or the two operations may be done by separate crews.

Felling and bucking must be carefully planned. They must proceed in regular order if the operation is to be economical. Even when all trees on an area are felled and bucked before they are moved care should be observed to fell them so that the tops will be out of the way of skidding operations. When cable skidding is to be used, less attention to the placing of tops is required, as the cables pull the logs to the landing with such force that tops are of little hindrance.

However, care should be exercised to fell them so that subsequent bunching and skidding will not be made unnecessary difficult. Thinning is the removal of a proportion of the stand's trees to allow the remaining trees better growing conditions with reduced competition for sunlight, water and soil nutrients. Thinning is carried out anywhere between age nine and 14 depending on the stocking.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. Trees in the forest **have reached** the age when thinning can be carried out.
- 2. They **are planning** felling operation to make it as economical as possible.

- 3. In production thinning the thinned stems **are extracted** to be used for pulp production.
- 4. The cutting **had been started** at the back of the strip and then progressed toward the landing so that danger to men, animals, and equipment from falling trees would be minimal.
  - 5. To perform felling properly a cutting crew is needed.
  - 6. Highly professional cutting crew will do both felling and bucking.

## ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. Felling and bucking must be carefully planned.
- 2. In cable skidding the cutting crew can pay less attention to the placing of tops.

### ЗАДАНИЕ 6. Подберите описания лесозаготовительных операций: Operation Definition

	Operation		Definition		
1.	Felling	a.	transporting trees or parts of trees by trailing or		
			dragging them.		
2.	Cutting	b.	gathering and arranging trees or parts of trees in		
			small piles.		
3.	bucking=slashing	c.	removing branches from trees.		
4.	skidding	d.	cutting standing trees, causing them to fall as a		
			result of the cutting.		
5.	thinning	e.	cutting off the top of a tree at a predetermined,		
			minimum diameter.		
6.	limbing	f.	removing limbs from trees.		
7.	loading	g.	cutting felled and limbered trees into lengths.		
8.	bunching	h.	initial hauling of a log from the stump to a		
			collection point.		
9.	transportation	i.	removing immature trees.		
10.	logging	j.	removing merchntable trees (contrasts with		
			cuttings, which remove immature trees).		
11.	yarding	k.	the process, work, or business of cutting down		
			trees and transporting the logs to sawmills.		
12.	timber harvesting	1.	picking up trees or parts of trees from the		
			ground or from a vehicle, transporting them,		
			and then piling them into another vehicle (such		
			as a highway, logging truck or rail car).		
13.	topping	m.	removal of a proportion of the stand's trees to		
			allow the remaining trees better growing		

conditions.

#### Вариант № 3

### ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите и подчеркните существительные (одной чертой) и глаголысказуемые (двумя чертами) в следующих предложениях, переведите предложения:

- 1. Our first lecture tomorrow will be either physics or mathematics.
- 2. Some students will have to wait for a few days before they can get their student's identity card and library card.
- 3. Five institutes of our University are training students for all branches of forest and wood working industries

### ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Accurately, freedom, historic, transportation, doubtful, feller, homeless, equipment, changeable, importance, harmonic, reliable, suitable, richly, variable

#### ЗАДАНИЕ 3. Письменно переведите текст:

Harvesting timber crops is performed under extremely variable conditions of climate, accessibility, species, size of timber, kind of product, and available transportation facilities. When a timbered area is to be harvested, the first information needed is its exact location and extent with respect to known points such as rivers, towns, railroads, or other base features so that harvesting operation could be well organized and roads or other means of access could be planned.

The most accurate and most useful way to express such information is by maps, drawn to suitable scale. A map should show the boundaries of the tract, rivers, lakes, roads, towns, and other pertinent data. Since transportation is of prime importance in harvesting, data on existing and available transportation: railroads, sidings and stations should be shown on maps.

Likewise, navigable streams and those suitable for river driving, booming and rafting also should be indicated. Of course, public highways and their load limits for log trucks need to be known. This information can be obtained only by making an inspection on the ground and recording the amount and kind of timber in each subdivision of the tract. Cruise of timber estimate is usually made to determine the volume, species, distribution and quality of merchantable timber and the topography so that construction and harvesting costs may be estimated.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод

предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. Currently, 23% of all timber produced in Russia is being exported.
- 2. Tractors skidding timber **are used** on flat ground and slopes which are up to 22 % steep (14 % in winter).
  - 3. Most processing operations done in the stump area **require** special skills.
- 4. All dead-standing and lodging trees **had been felled** on the area before the logging operation was started.
- 5. Marking trees with paint **has always been** a widely used method of designating trees to be cut or to be left.
- 6. The cost of constructing roads **varies** greatly with the steepness of slopes and soil conditions.

## ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. In this area felling must be done on the same level as previously felled trees.
- 2. Work schedule can be carefully balanced if each logging operation is integrated with the others for efficiency.

### ЗАДАНИЕ 6. Подберите описания лесозаготовительных операций: Operation Definition

	Operation		Definition		
1.	Felling	a.	transporting trees or parts of trees by trailing or		
			dragging them.		
2.	Cutting	b.	gathering and arranging trees or parts of trees in		
			small piles.		
3.	bucking=slashing	c.	removing branches from trees.		
4.	skidding	d.	cutting standing trees, causing them to fall as a		
			result of the cutting.		
5.	thinning	e.	cutting off the top of a tree at a predetermined,		
			minimum diameter.		
6.	limbing	f.	removing limbs from trees.		
7.	loading	g.	cutting felled and limbered trees into lengths.		
8.	bunching	h.	initial hauling of a log from the stump to a		
			collection point.		
9.	transportation	i.	removing immature trees.		
10.	logging	j.	removing merchntable trees (contrasts with		
	<del>-</del>	-			

cuttings, which remove immature trees).

- 11. yarding
- k. the process, work, or business of cutting down trees and transporting the logs to sawmills.
- 12. timber harvesting
- 1. picking up trees or parts of trees from the ground or from a vehicle, transporting them, and then piling them into another vehicle (such as a highway, logging truck or rail car).
- 13. topping
- m. removal of a proportion of the stand's trees to allow the remaining trees better growing conditions.

#### Вариант № 4

### ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите и подчеркните существительные (одной чертой) и глаголысказуемые (двумя чертами) в следующих предложениях, переведите предложения:

- 1. My group mate will participate in the second part of students' basketball competition.
- 2. Our University has been one of the oldest higher schools in forestry and forest industry in the world.
  - 3. Master's program was organized in our University in the 90s.

### ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Skidder, usually, forwarder, disadvantage, damage, adjustable, operation, contemporary, capable, operator, selection, logger, option, mature, carefully

### ЗАДАНИЕ 3. Письменно переведите текст:

Skidder

A skidder is any type of heavy vehicle used in a logging operation for pulling cut trees out of a forest in a process called "skidding", in which the logs are transported from the cutting site to a landing. Here they are loaded onto trucks (or in times past, railroad cars or flumes), and sent to the mill. Modern forms of skidders can pull trees with a cable/winch, just like the old steam donkeys, or a grapple or a clam-bunk.

Contemporary skidders are tracked or four wheel drive tractors with a turbocharged diesel engine, winch and steel, funnel-shaped guards on the rear to protect the wheels. They have articulated steering and usually a small, adjustable, push-blade on the front. The operator/logger is protected from falling or flying debris (or parted cables, or rolling over) by a steel enclosure. They are one of the few logging machines that are capable of thinning or selective logging in larger timber. Forwarders can haul small short pieces out, but if mature timber is to be thinned, a skidder is one of the few options for taking out some trees while leaving others.

The skidder can also be used for pulling tree stumps, pushing over small trees, and preliminary grading of a logging path known as a "skid road".

A positive thing about the skidder is that while wood is being yarded (pulled), tree particles and seeds are cultivated into the soil.

One disadvantage of skidder logging in thinning operations is the damage to remaining trees as branches and trunks are dragged against them, tearing away the protective bark of living trees.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. A skidder **is used** in a logging operation for pulling cut trees out of a forest.
- 2. With the development of diesel engines, increasing importance has been given to the proper introduction of fuel into the heated air in the combustion chamber.
- 3. A positive thing about the skidder is that while wood **is being yarded** (pulled), tree particles and seeds are cultivated into the soil.
  - 4. In the old times logs were loaded onto railroad cars after skidding.
- 5. In thinning operations the disadvantage of skidder logging **has** always **been** the damage to remaining trees.
- 6. In combustion engines adequate quantity of oil must be fed to all the bearing surfaces continuously while the engine **is running.**

## ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

1. The new model of feller-buncher can fell standing trees and arrange them in bunches on the ground.

2. All spare parts for this model of skidder are produced in Germany. That is why the spare parts must be ordered in advance.

### ЗАДАНИЕ 6. Подберите из правой колонки описания к терминам из левой колонки:

. J. J. L	DON KOJIOHKN	1.	
	Term		Definition
1.	Ignition	a.	heavy vehicle used for transporting trees or parts of
			trees by trailing or dragging them.
2.	Brakes	b.	the electrical system of a vehicle that makes the fuel
			begin to burn to start the engine
3.	spare parts	c.	removing merchntable trees (contrasts with cuttings,
			which remove immature trees).
4.	skidder	d.	the part of a vehicle containing the gears
5.	clutch	e.	a new part that is used to replace an old or broken
			part of a car, machine, etc.
6.	thinning	f.	machinery in a vehicle that turns engine power into
	C		movement forwards or backwards
7.	transmission	g.	a part of an engine that consists of a short cylinder that
		Ü	fits inside a tube and moves up and down or backwards
			and forwards to make other parts of the engine move
8.	piston	h.	removal of a proportion of the stand's trees to allow
	P. D. C.		the remaining trees better growing conditions.
9	gear box	i.	a device for slowing or stopping a vehicle
	gear ook	j.	the system in a vehicle by which power is passed
10.	. gear	J.	from the engine to the wheels
			a. –
11	logging	k.	
11.	logging	K.	the machinery in a vehicle that you use to control the
10	_4:	1	direction it goes in
12.	steering	1.	the pedal in a car or other vehicle which helps to change
1.0			gear
13.	engine	m.	the part of a vehicle that produces power to make the
			vehicle move

### Вариант № 5

### ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите и подчеркните существительные (одной чертой) и глаголысказуемые (двумя чертами) в следующих предложениях, переведите предложения:

1. My friend has never been to any museum in St. Petersburg so tomorrow we are going to the Hermitage museum.

- 2. Our monitor will have to take our student's identity cards to the Dean's office.
  - 3. Most students from other cities usually stay at our hostels.

### ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Skidder, helpful, alternatively, hydraulic, operator, possible, function, position, different, logger, neighbourhood, nature, membership, adjustment, maintenance

#### ЗАДАНИЕ 3. Письменно переведите текст:

#### Cable Skidder

On a cable skidder, the cable is reeled out and attached to a pull of cut timber, and then the winch pulls the load toward the skidder. The winch or grapple holds the trees while the skidder drags them to a landing area. Cable skidders are less popular than in the past. They are more labor-intensive than grapple skidders because someone (the operator or a second person) must drag the winch line out to the logs and hook them up. This is helpful where it is not possible to drive the machine close to the log (such as in steep hills).

Alternatively, some skidders have a hydraulic grapple bucket instead of a winch, and the bucket—attached to the skidder by a boom—grabs and lifts the timber.

There are three types of 'fixed boom' grapple skidders. A single-function boom type has two hydraulic cylinders, only allowing the boom to lower in one position. Dual-function booms have four cylinders, which allows for adjusting the boom in two different places. The third type permits the grapple boom to be swung from side to side, allowing spread out trees to be grabbed at once.

In some areas, loggers have combined a hydraulic claw on the side with the blade of their grapple skidders, making it possible to pile logs in some cases. More common on cable skidders, this also permits hauling back bark and tops when returning from a landing area to the stump.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия,

законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. Feller bunchers are highly productive felling machines they **work** well in both thinnings and clearcuts.
- 2. The old steam donkeys **have been** totally **replaced** by modern forms of winches.
- 3. These moving surfaces **are** rapidly **being worn** away because of the problem with the lubrication system.
  - 4. Great progress has been made in the development of the disk brake.
- 5. The type of logging thinning or clearcutting **affects** the size of feller buncher that can be used.
- 6. The company **is considering** the possibility of purchasing modern timber harvesting equipment.

## ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. Oil must be pumped under pressure to the parts of a car which should be lubricated.
  - 2. Tracked harvesters can operate on slopes up to 55%.

### ЗАДАНИЕ 6. Подберите из правой колонки описания к терминам из левой колонки:

13 110	DON KOJIOHKM.		
	Term		Definition
1.	Ignition	a.	heavy vehicle used for transporting trees or parts of
			trees by trailing or dragging them.
2.	Brakes	b.	the electrical system of a vehicle that makes the fuel
			begin to burn to start the engine
3.	spare parts	c.	removing merchntable trees (contrasts with cuttings,
			which remove immature trees).
4.	skidder	d.	the part of a vehicle containing the gears
5.	clutch	e.	a new part that is used to replace an old or broken part
			of a car, machine, etc.
6.	thinning	f.	machinery in a vehicle that turns engine power into
			movement forwards or backwards
7.	transmission	g.	a part of an engine that consists of a short cylinder that
			fits inside a tube and moves up and down or backwards
			and forwards to make other parts of the engine move
8.	piston	h.	1 1
0	4		remaining trees better growing conditions.
9.	gear box	i.	a device for slowing or stopping a vehicle
10.	gear	j.	the system in a vehicle by which power is passed from
			the engine to the wheels

- 11. logging k. the machinery in a vehicle that you use to control the direction it goes in
- 12. steering

  1. the pedal in a car or other vehicle which helps to change gear
- 13. engine m. the part of a vehicle that produces power to make the vehicle move

#### 2. КОНТРОЛЬНАЯ РАБОТА ДЛЯ СТУДЕНТОВ, ОБУЧАЮЩИХСЯ ПО НАПРАВЛЕНИЮ ПОДГОТОВКИ 09.03.02

#### Вариант № 1

### ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите существительные и глаголы-сказуемые в следующих предложениях, переведите предложения:

- 1. Our University was founded in 1803 in Tzar's Village the place which is now called Pushkin.
- 2. A few years ago the faculty of Forest Machines was reorganized into the Institute of Technological Machines and Forest Transport.
- 3. The first building of our University was constructed in 1826 to the design of architect A. D. Nellinger.

### ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Generally, computation, susceptible, interference, accurately, digitization, functionally, safety, different, literate, driver, powerful, shortage, slowly.

#### ЗАДАНИЕ 3. Письменно переведите текст:

#### **DIGITAL COMPUTERS**

Digital computers are based on manipulating binary digits. They are generally more effective than analog computers for four reasons: they are faster; they are not so susceptible to signal interference; they can transfer huge data bases more accurately; and their coded binary data are easier to store and retrieve than the analog signals.

By assigning binary numbers to their states 1 for "on" and 0 for "off" and linking many switches together a computer can represent any type of data from

numbers to musical notes. This process of recognizing signals is known as digitization. The power of a computer depends on the speed with which it checks switches per second. The more switches a computer checks the more data it can recognize and the faster it can operate; each switch is called a binary digit or bit.

A digital computer is a complex system of four functionally different elements: 1) the central processing unit (CPU), 2) input devices, 3) memory-storage devices called disk drives, 4) output devices. These physical parts and all their physical components are called hardware.

Most digital computers store data both internally, in main memory, and externally, on auxiliary storage units. As a computer processes data and instructions it temporarily stores information internally on special memory microchips. Auxiliary storage units supply the main memory when programs are too large and they also offer a more reliable method for storing data. There exist different kinds of auxiliary storage devices, removable magnetic disks are the most widely used.

Output devices let the user see the results of the computer's data processing. Information stored in one of the computer's memory systems can be printed on paper.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. Information has been stored in one of the computer's memory systems.
- 2. The computer **is checking** the input data.
- 3. Digital computers were based on manipulating binary digits.
- 4. The power of a computer **depends** on the speed with which it **checks** switches per second.
  - 5. A computer **has represented** the data from numbers.
- 6. A computer **has been processing** data and instructions and **storing** information on special memory microchip for 15 minutes.

## ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. Information stored in one of the computer's memory systems can be printed on paper.
  - 2. Modern digital computers must work faster than analog computers.

#### ЗАДАНИЕ 6. Подберите определение компьютерным терминам: Term Definition

1.	coded binary data	a. used to store inactive programs and to archive data
2.	digitization	b. disk drives keeping data
3.	bit	c. computers' physical components
4.	central processing unit	d. a hardware using data to perform a task
5.	input device	e. a device based on magnetic recording principle
6.	memory-storage device	f. sequence of text characters
7.	output device	g. it's for storing information internally on
8.	hardware	h. converting information into a digital format
9.	auxiliary storage units	i. a switch
10.	memory microchip	j. a hardware providing data into computer
11.	removable magnetic disk	k. keep information

1. a processor

### ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Вариант № 2

Найдите существительные и глаголы-сказуемые в следующих предложениях, переведите предложения:

- 1. Four buildings of our University are surrounded by a beautiful park.
- 2. In 1811 the Forest Institute was transferred from Tzar's village to Lesnoye, St. Petersburg where it is situated now.
  - 3. Neither correspondence students nor part time students are paid state grant.

### ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Functional, operation, serially, subtraction, register, performance, previous, easily, rainy, carefully, information, meaningless, professionally.

### ЗАДАНИЕ 3. Письменно переведите текст:

#### **MICROPROCESSORS**

A microprocessor is a very complex integrated circuit containing as many as 400 million miniaturized electronic components. The miniaturized circuitry in

12. store data

a microprocessor is grouped into important functional areas such as the ALU (arithmetic logic unit) and the control unit. The ALU performs arithmetic operations such as addition and subtraction. It also performs logical operations such as comparing two numbers to see if they are the same.

A microprocessor executes instructions provided by a computer program. The list of instructions that a microprocessor can perform is called its instruction set. These instructions are hard-wired into the processor's circuitry and include basic arithmetic and logical operations, fetching data and clearing registers. A computer can perform very complex tasks but it does so by performing a combination of simple tasks from its instruction set.

A microprocessor's performance is affected by several factors including clock speed, word size, cache size, instruction set and processing techniques.

A microprocessor uses CISC (complex instruction set computer) technology. A microprocessor with a limited set of simple instructions uses RISC (reduced instruction set computer) technology. A RISC processor performs most instructions faster than a CISC processor. Most processors in today's personal computer use CISC technology.

Some processors execute instruction "serially" – that is one instruction at a time. However, using a technology called pipelining a processor can begin executing an instruction before it completes the previous instruction.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. The ALU **performs** arithmetic operations such as addition and subtraction.
  - 2. The list of instructions has been called the instruction set.
  - 3. This processor **is using** a technology called pipelining.
- 4. A processor **had begun** executing an instruction before it completed the previous instruction.
  - 5. A microprocessor's performance is affected by several factors.
  - 6. They had been using an old technology before pipelining appeared.

ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. The ALU must perform logical operations such as comparing two numbers to see if they are the same.
  - 2. A computer can perform very complex tasks.

12. power consumption 1. checking device

### ЗАДАНИЕ 6. Подберите определение компьютерным терминам: Term Definition

1.	microprocessor	a. a technology executing instructions
2.	circuitry	b. list of commands
3.	ALU	c. full instruction list
4.	control unit	d. device controlling computer system
5.	instruction set	e. electric circuits collectively
6.	CISC	f. spending energy
7.	RISC	g. a device to read from/write to a computer
8.	pipelining	h. an integrated circuit containing functions of CPU
9.	computing	i. contracted instruction list
10.	disk drive	j. performs arithmetic operations
11.	keyboard	k. calculating

#### Вариант № 3

### ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите существительные и глаголы-сказуемые в следующих предложениях, переведите предложения:

- 1. Our first lecture tomorrow will be either physics or mathematics.
- 2. Some students will have to wait for a few days before they can get their student's identity card and library card.
- 3. Five institutes of our University are training students for all branches of forest and wood working industries.

### ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Permanently, application, replaceable, capacity, typically, development, function, safety, different, available, powerful, storage, relatively.

### ЗАДАНИЕ 3. Письменно переведите текст:

#### **MEMORY**

Random Access Memory is a temporary holding area for data, application program instructions and the operating system. RAM is usually several chips or small circuit boards that plug into the system board within the computer's system unit.

RAM also holds the results of processing until they can be stored more permanently on disk or tape; it also holds data and application software instructions, operating system instructions that control the basic functions of a computer system. RAM usually has less storage capacity than hard-disk storage.

In RAM microscopic electronic parts called capacitors hold the bits that represent data. You can visualize the capacitors as microscopic lights that can be turned on and off. Each bank of capacitors holds eight bits – one byte of data.

RAM components vary in speed, technology and configuration. RAM speed is often expressed in nanoseconds or megahertz. Most of today's personal computers use SDRAM (synchronous dynamic RAM), fast and relatively inexpensive, it is typically available on a small circuit board called a DIMM (dual inline memory module) or RDRAM (Rambus dynamic RAM), first developed for a game system and then adapted for use in personal computers.

Read-Only Memory is a type of memory circuitry that holds the computer's startup routine. Whereas RAM is temporary and volatile, ROM is permanent and non-volatile.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. Software **is being developed** to make basic functions of a computer system better.
  - 2. RAM components vary in speed, technology and configuration.
  - 3. ROM has been made as a permanent and non-volatile type of memory.
- 4. These instructions are loaded into RAM every time you start your computer.
  - 5. RAM usually **had** less storage capacity than hard-disk storage.
- 6. Several chips **have been plugged** into the system board within the computer's system unit.

ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. RAM must hold data and application software instructions, operating system instructions.
- 2. The results of processing can be stored more permanently on disk or tape.

#### ЗАДАНИЕ 6. Подберите определение компьютерным терминам: Term Definition

1.	data	a. insert
2.	chip	b. microscopic electronic part
3.	circuit board	c. information
4.	plug	d. a small circuit board
5.	software	e. nonremovable magnetic disk
6.	hard-disk	f. microcircuit
7.	capacitor	g. store/keep information
8.	bit	h. a small quantity of something
9.	SDRAM	i. a software supporting a computer's functions
10.	DIMM	j. a card containing an electric scheme
11.	operating system	k. fast working RAM
12.	hold data	l. programs used by a computer

#### Вариант № 4

### ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите существительные и глаголы-сказуемые в следующих предложениях, переведите предложения:

- 1. My group mate will participate in the second part of students' basketball competition.
- 2. Our University has been one of the oldest higher schools in forestry and forest industry in the world.
  - 3. Master's program was organized in our University in the 90s.

### **ЗАДАНИЕ 2.** Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Available, installation, conveniently, speedy, connection, probably, storage, performance, usually, various, automatically, careless, typically.

#### ЗАДАНИЕ 3. Письменно переведите текст:

#### INSTALLING PERIPHERAL DEVICES

USB is currently the most popular technology for connecting peripherals. Its ports are conveniently located on the front of the system unit for easy access. When you install a peripheral device you are creating a connection for data to flow between the device and the computer. Within a computer data travels from one component to another over circuits called a data bus. One part of the data bus runs between RAM and the microprocessor. Other parts of the data bus connect RAM to various storage and peripheral devices. The segment of the data bus that extends between RAM and peripheral devices is called the expansion bus. As data moves along the expansion bus it can travel through expansion slots, cards, ports and cables. An expansion slot is a long, narrow socket on the system board into which you can plug an expansion card. An expansion card is a small circuit board that gives a computer the capability to control a storage device, an input device or an output device. Expansion cards are also called "expansion boards", "controller cards" or "adapters".

Some devices require software called a device driver to set up communication between your computer and the device. Typically, you use the device driver disk or CD one time to get everything set up. Installing a peripheral device you should remember that the cable you use must match the peripheral device and a port on the computer. If the right type of port is not available you might have to add an expansion card.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. You have already used the CD to get everything set up.
- 2. Within a computer data **travels** from one component to another over circuits called a data bus.
- 3. When you install a peripheral device you **are creating** a connection for data to flow between the device and the computer.
- 4. Expansion cards **are** also **called** "expansion boards", "controller cards" or "adapters".
  - 5. The ports were located on the front of the system unit for easy access.
  - 6. Data has travelled through expansion slots, cards, ports and cables.

## ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. You can install driver software yourself.
- 2. The cable must match the peripheral device and a port on the computer.

#### ЗАДАНИЕ 6. Подберите определение компьютерным терминам:

	Term	Definition
1.	USB	a. insert
2.	access	b. an integrated circuit containing functions of CPU
3.	install	c. adapter
4.	connection	d. technology for connecting peripherals
5.	data	e. narrow socket to plug an extension card
6.	microprocessor	f. programs used by a computer
7.	expansion slots	g. device controlling computer system
8.	plug	h. information
9.	expansion card	i. set up information
10.	software	j. admission
11.	device driver	k. linking with smth else
12.	driver disk	l. set up connection between computer and device.

### 3. РАБОЧАЯ ТЕТРАДЬ ДЛЯ ВЫПОЛНЕНИЯ КОНТРОЛЬНОЙ РАБОТЫ

#### КОНТРОЛЬНАЯ РАБОТА

	(нух	кное обвести)
Число	ЗАЧТЕНО	
Проверил		
№ зачетной кн	№ варианта	1
Института СПбГЛТУ:	№ уч. группы	

<b>ЗАДАНИЕ 1.</b> Перевод предложени	ий:	
1.		
2.		
3.		
ЗАДАНИЕ 2.		
существительные	прилагательные	наречия
ЗАДАНИЕ 3. Письм	иенно переведите текст:	

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	ЗАДАНИЕ 4.
1.	
1.	
2.	
3.	
1	

ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

1.

перевод	
предложения	
предложение в	
прошедшем времени,	
перевод	
предложения	
предложение в	
будущем времени,	
перевод предложения	

2.

перевод предложения	
предложение в прошедшем времени, перевод предложения	
предложение в будущем времени, перевод предложения	

### ЗАДАНИЕ 6. Подберите описания лесозаготовительных операций:

Term	Definition
1	
2	
3	
4	
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12	
13	

#### Вариант № 5

### ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите существительные и глаголы-сказуемые в следующих предложениях, переведите предложения:

- 1. My friend has never been to any museum in St. Petersburg so tomorrow we are going to the Hermitage museum.
- 2. Our monitor will have to take our student's identity cards to the Dean's office.
  - 3. Most students from other cities usually stay at our hostels.

### **ЗАДАНИЕ 2.** Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Different, automatically, powerful, development, wisely, affordable, presentation, friendly, society, indispensible, accurately, user, operation, dangerous.

#### ЗАДАНИЕ 3. Письменно переведите текст:

Computers – New Era of Technologies

A computer is a machine that can be programmed in order to fulfill definite operations automatically. Moreover, it can solve a set of problems at the same time and manipulate different data. There are different types of computers: personal computers and workstations, minicomputers and mainframes, and powerful supercomputers.

The most widespread computers are personal general-purpose ones. These computers consist of a set of necessary components: the central processing unit, memory, a mass storage device and output and input devices. Nowadays a computer is an affordable way to enrich your life with modern technologies. You can browse the Internet, receive and send e-mails, create and edit documents and presentations, watch films and talk to your friends.

Computers help to broaden the minds of modern society. Why are computers so indispensible?

Firstly, they calculate and process all kinds of data accurately and fast. Of course, there are some mistakes and hardware problems with computer devices but almost all of them happen because of human mistake. Secondly, computers help to save storage place. The tons of paper documents are replaced by digital files in a computer. Modern computers are created to be user-friendly. You don't have to study for a long time to learn how to use a computer. A computer and the Internet give an access to various sources of information, libraries and galleries from the most distant places on our planet. Computers propel our life forward but we have to remember that they have to be used wisely.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. The tons of paper documents **have been replaced** by digital files in a computer.
  - 2. Computers **help** to broaden the minds of modern society.
  - 3. The Internet **isn't giving** an access to the necessary information.
- 4. A computer **solves** a set of problems at the same time and **manipulates** different data.
  - 5. Some old programs were replaced in the computer by our engineer.
  - 6. You have been studying for a long time to learn how to use a computer.

## ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. Computers can solve a set of problems at the same time and manipulate different data.
  - 2. They must calculate and process all kinds of data accurately and fast.

#### ЗАДАНИЕ 6. Подберите определение компьютерным терминам: Term Definition

	Term	Definition
1.	data	a. controls and executes operations
2.	workstation	b. a hardware providing data into computer
3.	mainframe	c. information keeping area
1	central processing unit	d admission

- 4. central processing unit
  5. memory-storage device
  6. mass storage device
  7. output device
  6. information keeping area
  d. admission
  e. a desktop computer terminal
  f. primary memory of a computer
  g. information
- output device g. information
   input device h. look through
   browse (the Internet) i. a hardware using data to perform a task
- 10. hardware
  11. storage place
  12. access
  13. disk keeping data
  14. k. equipment to store information
  15. computers' physical components

### 4. КОНТРОЛЬНАЯ РАБОТА ДЛЯ СТУДЕНТОВ, ОБУЧАЮЩИХСЯ ПО НАПРАВЛЕНИЯМ ПОДГОТОВКИ 18.03.01, 18.03.02, 20.03.01

#### Вариант № 1

### ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите существительные и глаголы-сказуемые в следующих предложениях, переведите предложения:

- 1. This year our University is celebrating its anniversary.
- 2. These 4<sup>th</sup> year students will be able to continue their education at the Master's program.
- 3. Our University is considered to be one of the oldest forest universities in the world.

### ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Introduction, relatively, basic, development, chemical, shortage, principal, substance, requirement, combination, necessary, easiness, wooden, careless, plentiful

### ЗАДАНИЕ 3. Письменно переведите текст:

The raw material to make paper

The introduction of wood as a source of papermaking fibers at the end of the 19<sup>th</sup> century was a great development which changed the future course of the pulp and paper industry and paved the way for the mass production of paper on modern high-speed paper machines. The abundance and relatively low cost of wood compared to materials used for papermaking before, opened up new markets and laid the basis for the modern pulp and paper industry.

Now wood is the principal raw material for pulp. Pulp is the raw material from which paper, paper-board, some plastics and many other products are made.

All wood is made of the same basic parts: cellulose, fibers, lignin (a glue-like substance), which holds those fibers together, sugars, resins, mineral salts, and other substances. Wood fibers are very thin. They are thinner than a human hair. The fiber length of hardwoods rangers from 1 to 2 millimetres and that of softwoods rangers from 3 to 6 millimetres.

The task of the papermaker is to separate the fibers and to rearrange them in new patterns and in new combination with other substances for making different products. This may be done by several methods: mechanical, chemical, semichemical, and thermomechanical. The method chosen depends upon the type of wood used and requirements of the end-product.

Historically softwoods have been preferred to hardwoods, owing to their greater fiber length. The recent shortage of softwoods has made it necessary to use more hardwoods.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. Chemists **are looking** for the methods of this substance purification.
- 2. They **have finished** the first stage of paper making process they **have separated** the fibers.
- 3. Any process of pulp preparation begins with barking so now bark is being removed.
- 4. All wood **is made** of the same basic parts: cellulose, fibers, lignin, sugars, resins, mineral salts, and other substances.
- 5. The introduction of wood as a source of papermaking fibers **paved** the way for the mass production of paper.
- 6. Softwoods have been preferred to hardwoods, owing to their greater fiber length.

ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. You cannot see wood fibers because they are thinner than a human hair.
- 2. We must consider the type of wood used and requirements of the endproduct to choose the method of fiber separation and rearrangement.

### ЗАДАНИЕ 6. Подберите из правой колонки описания к терминам из левой колонки:

Term	Definition
a. alchemy	1. a subatomic particle without an electric charge
b. electron	2. water
c. chemical bond	3. the study of elements and their compounds
d. neutron	4. chemistry of Middle Ages
e. particles	5. material
f. carbon compounds	6. a quality or power of something
g. hydrogen oxide	7. the smallest of the particles that make up an atom
h. to isolate	8. nonliving
i. chemistry	9. a lasting attraction between atoms, ions or molecules
j. substance	10. very small bits
k. property	11. organic compounds
1. inorganic	12. to sort out

### Вариант № 2

### ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите существительные и глаголы-сказуемые в следующих предложениях, переведите предложения:

- 1. Our monitor will take part in the meeting of the University monitors.
- 2. The second building of the University is situated near the crossroad of Novorossiyskaya street and Institutsky prospect.
- 3. My friend is a third year correspondence student of St. Petersburg Forest Technical university.

### ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Preparation, powerful, eventually, fibrous, conveyor, chemical, useless, relationship, digester, gradually, pulpy, breakage, scientific, freedom, solution

### ЗАДАНИЕ 3. Письменно переведите текст:

Semi-chemical pulping

Any process of pulp preparation begins with barking. Bark is removed in big steel cylinders called barking drums. Logs tumble against each other and as a result bark is stripped. Another common method is using powerful jets of water. If bark is not removed we get darker and dirtier pulp. The bleaching of such a pulp is very difficult.

The technology of utilizing the whole tree is already known and is used at many mills. But at the majority of pulp .and paper mills bark is removed. After barking (in the mechanical process) the grinding stone grinds logs in large quantities of water and reduce the logs to fibrous state. One disadvantage of groundwood pulping is that grinding of fibers weakens them and paper made from groundwood is not strong. But even newsprint is composed not only of groundwood but also of chemical fibres obtained in chemical pulping.

Another way of making wood pulp which combines mechanical and chemical methods is called the semi-chemical process. It was developed particularly for the pulping of hardwoods and has many variations. The pulpwood chips are cooked in a mild chemical solution, and then the fibers are separated mechanically. Semichemical pulps are used in making corrugated paper boards, e.g. cartons and many other items.

In each of the chemical methods logs must be chipped before they are cooked. Rotating knives cut off chips and a conveyor belt carries them either to a storage or to digesters.

These digesters operate on the same principle as a kitchen pressure cooker. Wood chips in chemical solution are cooked with steam, until reduced to a wet pulpy mass.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. The sulphate process was originally used mainly for the pulping of softwoods.
- 2. The technology of utilizing the whole tree **has been introduced** at many mills.
  - 3. They have just started the process of pulping.
  - 4. At the moment pulpwood is being cooked in a mild chemical solution.
- 5. The introduction of wood as a source of papermaking fibers **paved** the way for the mass production of paper.
- 6. Scientists are working on the problem of paper printing qualities improvement.

ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего

### и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. He cannot find any solution of the problem.
- 2. They must buy new equipment from time to time.

### ЗАДАНИЕ 6. Подберите из правой колонки описания к терминам из левой колонки:

Term	Definition
a. neutron	1. a subatomic particle without an electric charge
b. electron	2. water
c. chemical bond	3. the study of elements and their compounds
d. alchemy	4. chemistry of Middle Ages
e. particles	5. material
f. carbon compounds	6. a quality or power of something
g. hydrogen oxide	7. the smallest of the particles that make up an atom
h. to isolate	8. nonliving
i. chemistry	9. a lasting attraction between atoms, ions or molecules
j. inorganic	10. very small bits
k. property	11. organic compounds
1. substance	12. to sort out

#### Вариант № 3

### ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите существительные и глаголы-сказуемые в следующих предложениях, переведите предложения:

- 1. Many full time students have to work part time.
- 2. The third building of the University is situated near the crossroad of Engels prospect and Novorossiyskaya street.
- 3. My friend is a third year correspondence student of St. Petersburg Forest Technical University.

### ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Separation, commonly, producer, mechanical, neighbourhood, advantage, quality, purely, useful, eventually, fibrous, originally, leadership, relevance, barkless

#### ЗАДАНИЕ 3. Письменно переведите текст:

Chemical pulping

In the chemical paper-making processes, wood fibers are separated from their lignin binder by cooking chips in any of the chemical solutions. The most common chemical processes are: the sulphite process, the sulphate process and the soda process. If compared with mechanical pulping, chemical pulping is more expensive, more raw material is lost (up to 50 per cent in chemical pulping and only about 2 per cent in mechanical pulping), the equipment for mechanical pulping is cheaper than the equipment for chemical pulping. But chemical pulping has one great advantage – the quality of pulp produced in chemical pulping is much higher than the quality of pulp produced in mechanical pulping.

Paper made from hardwoods by the soda process has good printing qualities. As you know, hardwood fibers are much shorter than softwood fibers. When pulped by this process and mixed with longer fibers, hardwoods make high quality magazine and book papers.

The sulphite process is not so popular now. The sulphate process was originally used mainly for the pulping of softwoods, especially pine. Now this process is used in pulping both softwoods and hardwoods for papers, which are used for wrappings, bags and other durable papers requiring strength. Corrugated board is among the many paper products made from sulphate pulp. By bleaching the uses of this pulp have been broadened and many other kinds of paper – writing paper, printing paper – including bright white grades of paper are made from bleached sulphate pulp.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. The sulphate process was originally used mainly for the pulping of softwoods
  - 2. The technology of utilizing the whole tree **has been introduced** at many mills.
  - 3. They have just started the process of pulping.
  - 4. At the moment pulpwood is being cooked in a mild chemical solution.
- 5. The introduction of wood as a source of papermaking fibers **paved** the way for the mass production of paper.
- 6. Scientists **are working** on the problem of paper printing qualities improvement.

## ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. He cannot find any solution of the problem.
- 2. They must buy new equipment from time to time.

## ЗАДАНИЕ 6. Подберите из правой колонки описания к терминам из левой колонки:

Term	Definition
a. carbon compounds	1. a subatomic particle without an electric charge
b. electron	2. water
c. chemical bond	3. the study of elements and their compounds
d. neutron	4. chemistry of Middle Ages
e. particles	5. material
f. alchemy	6. a quality or power of something
g. hydrogen oxide	7. the smallest of the particles that make up an atom
h. to isolate	8. nonliving
i. inorganic	9. a lasting attraction between atoms, ions or molecules
j. substance	10. very small bits
k. property	11. organic compounds
1. chemistry	12. to sort out

#### Вариант № 4

## ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите существительные и глаголы-сказуемые в следующих предложениях, переведите предложения:

- 1. Our University is considered to be one of the oldest forest universities in the world.
- 2. This year our University is celebrating its anniversary.
- 3. These 4<sup>th</sup> year students will be able to continue their education at the Master's program.

## ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Introduction, requirement, relatively, basic, easiness, development, chemical, principal, substance, combination, necessary, wooden, careless, plentiful, shortage.

#### ЗАДАНИЕ 3. Письменно переведите текст:

The wild rubber trees of the South American jungles continued to be the main source of crude rubber for most of the 19th century. In 1876, the British explorer Sir Henry Wickham collected about 70,000 seeds, and, despite a rigid embargo, smuggled them out of Brazil. The seeds were successfully grown in the hothouses of the Royal Botanical Gardens in London, and were used to establish plantations first in Ceylon and then in other tropical regions of the eastern hemisphere. Similar plantations have since been established largely within a narrow belt extending about 1,100 km on both sides of the equator.

In the United States, rubberized goods had become popular by the 1830s, and rubber bottles and shoes made by the Native South Americans were imported in substantial quantities. Other rubber articles were imported from England, and in 1832, at Massachusetts, John Haskins and Edward Chaffee organized the first rubber-goods factory in the United States. However, the resulting products, like the imported articles, became fragile in cold weather, and sticky and smelling bad in summer. In 1834 the German chemist Friedrich Ludersdorf and the American chemist Nathaniel Hayward discovered that the addition of sulphur to gum rubber lessened or eliminated the stickiness of finished rubber goods. In 1839 the American inventor Charles Goodyear, using the findings of the two chemists, discovered that cooking rubber with sulphur removed the gum's unfavourable properties, in a process called vulcanization. Vulcanized rubber has increased strength and elasticity and greater resistance to changes in temperature than unvulcanized rubber.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. Similar plantations **have since been established** largely within a narrow belt extending about 1,100 km on both sides of the equator.
  - 2. In the United States, rubberized goods had become popular by the 1830s.
  - 3. Other rubber articles were imported from England.
- 4. Vulcanized rubber **has increased** strength and elasticity and greater resistance to changes in temperature than unvulcanized rubber.
- 5. When Charles Goodyear **was using** the findings of the two chemists, he **discovered** that cooking rubber with sulphur removed the gum's unfavourable properties, in a process called vulcanization.

6. The seeds **were** successfully **grown** in the hothouses of the Royal Botanical Gardens in London.

## ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. He cannot find any solution of the problem.
- 2. They must buy new equipment from time to time.

## ЗАДАНИЕ 6. Подберите из правой колонки описания к терминам из левой колонки:

Term	Definition
a. to isolate	1. water
b. electron	2. a subatomic particle without an electric charge
c. chemical bond	3. the study of elements and their compounds
d. neutron	4. chemistry of Middle Ages
e. particles	5. material
f. alchemy	6. a quality or power of something
g. hydrogen oxide	7. the smallest of the particles that make up an atom
h. carbon compounds	8. nonliving
i. inorganic	9. a lasting attraction between atoms, ions or molecules
j. substance	10. very small bits
k. property	11. organic compounds
1. chemistry	12. to sort out

#### Вариант № 5

## ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите существительные и глаголы-сказуемые в следующих предложениях, переведите предложения:

- 1. My friend is a third year correspondence student of St. Petersburg Forest Technical university.
  - 2. Many full time students have to work part time.
- 3. The third building of the University is situated near the crossroad of Engels prospect and Novorossiyskaya street.

## ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Separation, barkless, commonly, producer, mechanical, neighbourhood, advantage, quality, useful, eventually, fibrous, originally, leadership, relevance, purely.

#### ЗАДАНИЕ 3. Письменно переведите текст:

A botanical garden is a garden in which plants are grown and displayed primarily for scientific and educational purposes. A botanical garden consists chiefly of a collection of living plants, grown out-of-doors or under glass in greenhouses and conservatories. It usually includes, in addition, a collection of dried plants, or herbarium, and such facilities as lecture rooms, laboratories, libraries, museums, and experimental or research plantings.

The plants may be arranged according to one or more subdivisions of botanical science. The arrangements may be systematic (by plant classification), ecological (by relation to environment), or geographic (by region of origin). The larger botanical gardens often include special groupings, such as rock gardens, water gardens, wildflower gardens and collections of horticultural groups produced by plant breeding, such as roses, tulips, or rhododendrons. A plantation restricted to exhibits of woody plants is called an arboretum.

Almost every major city has a botanical garden. The Royal Botanical Gardens, better known as Kew Gardens, near London, founded in 1759, is the largest in the world. Experiments and research done there have led to the transplanting of commercially productive crops such as rubber, from their native habitats to other parts of the world.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. A botanical garden **consists** chiefly of a collection of living plants, grown out-of-doors or under glass in greenhouses and conservatories.
- 2. Experiments and research done there **have led** to the transplanting of commercially productive crops such as rubber, from their native habitats to other parts of the world.
- 3. Roses, tulips and rhododendrons **are being grown** in the gardens of St.Petersburg this year.
- 4. The plants **are arranged** according to one or more subdivisions of botanical science.

- 5. The Royal Botanical Gardens, better known as Kew Gardens, near London, was founded in 1759.
- 6. All the plants in this botanical garden have been grown and displayed primarily for scientific and educational purposes.

# ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. The arrangements may be systematic (by plant classification), ecological (by relation to environment), or geographic (by region of origin).
  - 2. Every big city must have a botanical garden.

## ЗАДАНИЕ 6. Подберите из правой колонки описания к терминам из левой колонки:

Term	Definition
a. to isolate	1. water
b. electron	2. a subatomic particle without an electric charge
c. chemical bond	3. the study of elements and their compounds
d. neutron	4. chemistry of Middle Ages
e. particles	5. material
f. alchemy	6. a quality or power of something
g. hydrogen oxide	7. the smallest of the particles that make up an atom
h. carbon compounds	8. nonliving
i. inorganic	9. a lasting attraction between atoms, ions or molecules
j. substance	10. very small bits
k. property	11. organic compounds
1. chemistry	12. to sort out

## 5. КОНТРОЛЬНАЯ РАБОТА ДЛЯ СТУДЕНТОВ, ОБУЧАЮЩИХСЯ ПО НАПРАВЛЕНИЯМ ПОДГОТОВКИ 05.03.06, 06.03.01, 35.03.01

#### Вариант № 1

## ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите существительные и глаголы-сказуемые в следующих предложениях, переведите предложения:

1. Four buildings of our University are surrounded by a beautiful park.

- 2. In 1811 the Forest Institute was transferred from Tzar's village to Lesnoye, St. Petersburg where it is situated now.
- 3. During the WWII many students and teachers of the Academy went to the front.

## ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Management, practically, obvious, basically, foundation, productive, relationship, individually, forester, scientifically, adaptable, windy, useless, operation.

#### ЗАДАНИЕ 3. Письменно переведите текст:

What is Forestry

Throughout the world, the science of forestry is young. Even the Germans based their management practices on accumulated observations and trial-and-error experiences up until about 1863, when experiment stations were established and research methods were used to develop a scientific foundation for the art. There had been some experimenting among the ancients in the growing and care of individual trees, and things that nowadays seem obvious had been discovered and recorded.

Forestry has to take account of air, water, earth, fire, plants, animals, human relationships and the needs of people. All these things have profound effect upon efforts to learn how to produce manage and utilize forests, and upon actual work in laboratory, forest field and mill. Geology contributes its established knowledge of the earth's crust, the formation of soil, and the action of wind, water, and ice. Biology classifies and identifies and describes the living things whose growth and harvest forestry would manipulate. Ecology plunges into the little-known matters of adaptation by living things to their environments. Mathematics enters into measurement of forest products, calculations of growth and yield, analysis of investments, and forecasting of needs. Physics and chemistry help forestry in its wrestling with subtle problems of growth, injury, fire control, and the engineering phases of harvesting and forest crop. Economics offers to investigate supply and demand, to point out factors of production, and to outstrip mathematics in analyzing investments.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод

предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. The things that nowadays seem obvious had been discovered and recorded.
- 2. Geology **contributes** its established knowledge of the earth's crust, the formation of soil, and the action of wind, water, and ice.
  - 3. The scientists are making experiments in the growing and care of trees.
- 4. The Germans **based** their management practices on accumulated observations and trial-and-error experiences until 1863.
- 5. Forestry **has taken** account of air, water, earth, fire, plants, animals, human relationships and the needs of people.
  - 6. Research methods were used to develop a scientific foundation for the art.

# ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. Biology can classify, identify and describe the living things.
- 2. Economics must investigate supply and demand, point out factors of production and outstrip mathematics in analyzing investments.

### ЗАДАНИЕ 6. Подберите определение терминам: Term Definition

	Definition
1. pruning	a. cutting off the upper brunches of a tree
2. transplanting	b. grains of plants used for sowing
3. silviculture	c. active healthy growth of plants
4. the soil formation	d. keeping, holding
5. pollarding	e. a main trunk of a plant
6. vigor	f. selective removal of certain parts of a plant
7. seed	g. pedogenesis, soil evolution
8. harvesting	h. moving a plant from one location to another
9. research	i. cutting and collecting crops
10. storage	j. a branch of forestry dealing with the development of forests
11. stem	k. exploration

## ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите существительные и глаголы-сказуемые в следующих предложениях, переведите предложения:

- 1. Some students will have to wait for a few days before they can get their student's identity card and library card.
- 2. Five institutes of our University are training students for all branches of forest and wood working industries.
  - 3. In 1930 the Forest Institute was renamed the Forest Technical Academy.

## ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Frequent, adventitiously, consecutive, production, enormous, finally, circumstance, invariably, development, helpful, shortage, exceptionally.

#### ЗАДАНИЕ 3. Письменно переведите текст:

#### Buds

On the side of the stem, the leaves are borne. That part of the stem to which a leaf is attached is called the node. The angle which the leaf makes with the stem is called the axil, and frequently borne in the axil is a bud which is called the axillary bud. This is a lateral bud in contradistinction to the terminal bud which is to be found at the end of any stem or twig. That part of the stem passing between two consecutive nodes is called the internode.

Buds are young, undeveloped shoots. If they are leaf-buds only they finally grow out to produce either single leaves or branch stems bearing other leaves. On the other hand, if they are flower-buds, they finally produce the flower or flowers and then their growth ceases. The production of a flower anywhere almost invariably results in the cessation of development in that direction. Axillary buds produce branch shoots, or single leaves or flowers. But not all axillary buds develop in normal conditions. In the case of trees especially, considering the enormous number of leaves on one tree, if all their axillary buds developed to produce branches, the tree would soon become a tangled mass. Such sleeping buds are called dormant buds. In exceptional circumstances, however, dormant buds will awaken and actively develop new branches. This awakening is frequently stimulated by the cutting off a terminal bud.

If the main trunk of a tree is cut down, a dense outgrowth of branches develops from the base of the trunk. These branches are produced from dormant and other buds which arise adventitiously. The phenomenon is known as tillering. This sometimes occurs in certain kinds of trees, even if the main trunk is still flourishing.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. The production of a flower **has resulted** in the cessation of development in that direction.
- 2. This sometimes **occurs** in certain kinds of trees, even if the main trunk is still **flourishing**.
- 3. The main trunk of a tree **had been cut down** to develop a dense outgrowth of branches from the base of the trunk.
  - 4. That part of the stem to which a leaf **is attached** is called the node.
  - 5. This awakening is frequently stimulated by the cutting off a terminal bud.
  - 6. Dormant buds will awaken and actively develop new branches.

## ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. This can occur in certain kinds of trees, even if the main trunk is still flourishing.
- 2. If all the tree's axillary buds develop to produce branches, the tree may soon become a tangled mass.

#### ЗАДАНИЕ 6. Подберите определение терминам:

Term	Definition
1. axillary bud	a. an angel between a leaf and a stem
2. dormant bud	b. a new growth from seed
3. shoot	c. a branch of forestry dealing with the development of forests
4. tillering	d. a main trunk of a plant
5. tangled mass	e. sleeping bud
6. vigor	f. part of the stem to which a leaf is attached
7. harvesting	g. an embryonic shoot in the axil of a leaf
8. axil	h. producing brunches
9. node	i. cutting and collecting crops
10. stem	j. active, healthy growth of plants
11. silviculture	k. confused mass

## ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите существительные и глаголы-сказуемые в следующих предложениях, переведите предложения:

- 1. Our University has been one of the oldest higher schools in forestry and forest industry in the world.
- 2. My group mate will participate in the second part of students' basketball competition.
  - 3. Master's program was organized in our University in the 90s.

## ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Maturity, especially, different, germination, windy, development, unfortunately, occurrence, fruitless, occasionally, enormous, frequently.

#### ЗАДАНИЕ 3. Письменно переведите текст:

Year of Seed Maturation

It was observed that a good flowering year is followed by a rich cone crop in the following year, but a rich cone year is not always a good seed year.

Thus investigations directly connected with the seed maturation year for forest trees do not deal only with course of fertilization, seed setting, maturity and germination rate of the seed and different internal connections between cone and seed properties, seed quality and plant development, but also with factors which have a depressing or stimulating effect upon the size and quality of the seed crop.

Especially as regards pine Sarvas has carried out in Finland detailed investigations of factors reducing seed production and seed quality. In this connection he has made certain causes of non-fertilization and occurrence of empty seeds the main objects of his investigations. Light has also been thrown upon the seed setting of Norway spruce. Different causes affect the formation of empty seeds and these causes can vary for different tree species. In contradistinction to spruce, the pine develops no empty seed in case of non-pollination. Only a seed wing shows in the pine that an unfertilized egg cell has degenerated. On the other hand, in the case of pine, only those embryos which collapse for one or another reason give rise to empty seeds. According to Sarvas self-pollination is, in pine, the main cause of the appearance of empty seeds. In the case of Norway spruce, Sarvas states that the greatest amount of empty seed is due to incomplete pollination.

Very close attention, especially in Finland, Norway and Sweden, has been paid to the connection between the questions of seed maturity, cone years and fresh growth on the one hand, and the summer temperature and other climatic

factors on the other hand, and also to the reciprocal connection between the questions of seed and fresh growth.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. Light has also been thrown upon the seed setting of Norway spruce.
- 2. Only those embryos which **collapse** for one or another reason **give** rise to empty seeds.
- 3. Thanks to these factors seed quality and plant development **are** becoming better.
  - 4. A good flowering year **is followed** by a rich cone crop in the following year.
- 5. Sarvas **has carried out** in Finland detailed investigations of factors reducing seed production and seed quality.
  - 6. The pine **develops** no empty seed in case of non-pollination.

## ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. Only a seed wing can show in the pine that an unfertilized egg cell has degenerated.
- 2. Different causes may affect the formation of empty seeds and these causes can vary for different tree species.

#### ЗАДАНИЕ 6. Подберите определение терминам:

•	31-77-11-12 or 11-07-0-b-11-0	orbedering reburning
	Term	Definition
1.	maturation	a. an organ on conifer plants
2.	embryo	b. ovum
3.	fertilization	c. not pleasing state or factors
4.	egg cell	d. product harvested for profit
5.	germination	e. loss, harm
6.	crop	f. process of growth and development
7.	cone	g. characteristic, feature
8.	unfavorable conditions	h. pollination
9.	damage	i. growth of an organism from a seed
10.	. flowering	j. an early stage of an organism
11.	. property	k. bloom, blossom

## ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите существительные и глаголы-сказуемые в следующих предложениях, переведите предложения:

- 1. The four buildings of the University are surrounded by a beautiful park.
- 2. My friend has never been to any museum in St. Petersburg so tomorrow we are going to the Hermitage museum.
  - 3. Our monitor will have to take our student's identity cards to the Dean's office.

## ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Merely, correlation, disturbance, eventually, different, necessarily, development, available, quality, physiologically, rainy, famous.

#### ЗАДАНИЕ 3. Письменно переведите текст:

Tree growth

The physiology of growth is this: through the process of photosynthesis and with the help of nitrogen and the mineral elements, the tree builds up its body. But the growth of a tree is not merely an accumulation of organic matter. Growth is an involved physiological process, in which the use of building materials is regulated by the growth substances or hormones.

Growth of the tree depends not only on the correlation of its physiological functions but also on external factors like temperature, light, and moisture. Within a certain range, an increase of temperature of 18° F. nearly doubles the rate of growth of plants, but when temperature is either too low or too high for a proper functioning of the organism, many disturbances may occur in the tree. In that case the growth of the tree is retarded, and although life may still continue there is no coordination between the different vital functions. The tree ceases to grow. The optimum temperature for growth is not necessarily the same as the optimum temperature for general development of the plant. Many trees need a low temperature period for their normal development; when this cold period is eliminated, they do not grow.

Light must be available in the proper amount and quality. When light is lacking, the tree cannot manufacture organic matter and will eventually die. Light also retards the growth of the tree. In the dark, the shoots grow faster than in the light. In yellow and red light the plant can assimilate carbon dioxide very well. For normal development a tree needs, besides yellow and red light, the blue, violet, and ultraviolet rays of the sun.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. Many trees **need** a low temperature period for their normal development.
- 2. The tree **has** normally **developed** under ultraviolet rays of the sun.
- 3. The trees were lacking the light.
- 4. Growth of the tree **depended** not only on the correlation of its physiological functions.
  - 5. In yellow and red light the plant is assimilating carbon dioxide very well.
- 6. The use of building materials **is regulated** by the growth substances or hormones.

ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. Light must be available in the proper amount and quality.
- 2. When temperature is either too low or too high for a proper functioning of the organism, many disturbances may occur in the tree.

### ЗАДАНИЕ 6. Подберите определение терминам:

	1 erm	Definition
1.	photosynthesis	a. active healthy growth of plants
2.	organic matter	b. a main trunk of a plant
3.	eliminate	c. outside influences
4.	retard	d. carbon based compounds
5.	vigor	e. disorder, interruption of a settled condition
6.	external factors	f. a new growth from seed
7.	moisture	g. slow down
8.	disturbance	h. live action of an organ
9.	vital function	i. humidity
10.	shoot	j. converting light energy into chemical
11.	stem	k. remove, get rid of

## ЗАДАНИЕ 1. Прочитайте грамматический комментарий № 1 и выполните задание:

Найдите существительные и глаголы-сказуемые в следующих предложениях, переведите предложения:

- 1. In 1811 the Forest Institute was transferred from Tzar's village to Lesnoye, St. Petersburg where it is situated now.
- 2. My friend has never been to any museum in St. Petersburg so tomorrow we are going to the Hermitage museum.
  - 3. Neither correspondence students nor part time students are paid state grant.

## ЗАДАНИЕ 2. Прочитайте грамматический комментарий № 2 и выполните задание:

Разделите следующие слова на существительные, прилагательные и наречия и запишите их в 3 колонки, переведите их:

Periodicity, division, deciduous, elongation, differently, enlargement, subsequent, nutrient, physiologically, previous, usually, possible.

#### ЗАДАНИЕ 3. Письменно переведите текст:

In a temperate climate, trees show an annual periodicity of growth. The annual shoot completes its growth early in the season, say at the end of June. By that time, in many forest trees, all cell division for the next year's growth is completed in the bud. This means that the next year's growth pattern of a tree is determined almost a year before — all microscopic flower buds are set; all microscopic leaf buds are formed. The next season the growth takes place mostly by elongation of the bud cells prefabricated in the previous year. Growth in diameter takes place throughout the summer by division and enlargement of cambium cells.

A long time before cold weather sets in, the tree has already completed its seasonal growth; it prepares for the winter. Evergreen trees retain their foliage for winter, but deciduous trees act differently. They remove much of the nutrient material from the leaves, and then a peculiar physiological process (abscission) of the leafstalks causes the leaves to drop. The tree is in a deep rest now and can withstand a great deal of cold. An unusual warm spell in late winter or early spring, however, may cause buds to open – subsequent cold may kill them. Sometimes a northern tree transplanted in the South might open its buds too early in the spring and suffer from a later frost.

Reproduction is possible when the tree reaches its physical maturity. The sexual reproduction of trees is basically similar to that of animals. In plants, reproduction manifests itself by the appearance of male and female flowers, which may be born either on separate trees, as in cottonwood, or on the same tree, as in pine, or even combined into a perfect flower, as in the magnolia.

ЗАДАНИЕ 4. Прочитайте грамматический комментарий № 3. Определите и запишите инфинитивы (исходные формы) выделенных глаголов. Переведите предложения: под цифрой «1» запишите перевод предложений, в которых описываются обычные/ повторяющиеся действия (the Indefinite Tense); под цифрой «2» — перевод предложений, в которых описываются действия, находящиеся в развитии, в процессе; под цифрой «3» — перевод предложений, в которых описываются действия, законченные к какому-то моменту; действия, которые начали происходить в прошлом и продолжают происходить в настоящем.

- 1. Growth in diameter is taking place during the summer.
- 2. Scientists **transplanted** this northern tree in the South.
- 3. All cell division for the next year's growth has been completed in the bud.
- 4. In a temperate climate, trees **show** an annual periodicity of growth.
- 5. The tree **had already completed** its seasonal growth preparing for the winter.
  - 6. Transplanted in the South a tree will open its buds only in the spring.

ЗАДАНИЕ 5. Прочитайте грамматический комментарий № 4. Преобразуйте сказуемое предложений в форму прошедшего и будущего времени. Запишите получившиеся предложения и переведите их.

- 1. When in a deep rest a tree can withstand a great deal of cold.
- 2. An unusual warm spell in late winter or early spring may cause buds to open.

### ЗАДАНИЕ 6. Подберите определение терминам: Term Definition

	1 61 111	Deminion
1.	division	a. falling off at maturity
2.	shoot	b. ovum in the layer in the stem or root
3.	abscission	c. evergreen plants
4.	cambium cell	d. petiole
5.	foliage	e. separation
6.	deciduous	f. food stuff
7.	coniferous trees	g. move from one location to another
8.	nutrient material	h. growth of a body
9.	leafstalk	i. shedding of parts of a plant
10.	physical maturity	j. a new growth from seed
11.	transplant	k. plant leaves collectively

#### Учебное издание

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