

КЫРГЫЗСКО-РОССИЙСКИЙ СЛАВЯНСКИЙ УНИВЕРСИТЕТ

Кафедра иностранных языков

АНГЛИЙСКИЙ ЯЗЫК

Методическая разработка
по внеаудиторному чтению
для студентов
естественно-технического факультета
специальности ОПУТ

Составители:

Е.В. Верхолазова, А.Н. Тухтарова

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Составлена для студентов естественно-технического факультета специальности «Организация перевозок и управление на транспорте», для ознакомления с терминологией по специальности. В нее включены тексты по специальности и лексико-грамматические упражнения. Методическая разработка может использоваться как для внеаудиторного чтения, так и для аудиторной работы.

imperial palaces and living quarters of the capital city as the water lifted by the chain pumps were brought in by a stoneware pipe system.

Pipelines are useful for transporting water for drinking or irrigation over long distances when it needs to move over hills, or where canals or channels are poor choices due to considerations of evaporation, pollution, or environmental impact.

The 530 km (360 mile) Goldfields Water Supply Scheme in Western Australia using 760 mm (30 inch) pipe and completed in 1903 was the largest water supply scheme of its time.

Examples of significant water pipelines in South Australia are the Morgan – Whyalla (completed 1944) and Mannum – Adelaide (completed 1955) pipelines.

There are two Los Angeles, California aqueducts, the First Los Angeles Aqueduct (completed 1913) and the Second Los Angeles Aqueduct (completed 1970) which also include extensive use of pipelines.

in Pennsylvania to a railroad station in Oil Creek, in the 1860s. Regardless of this, pipelines are generally the most economical way to transport large quantities of oil or natural gas over land. Compared to railroad, they have lower cost per unit and higher capacity. Although pipelines can be built under the sea, that process is economically and technically demanding, so the majority of oil at sea is transported by tanker ships.

Oil pipelines are made from steel or plastic tubes with inner diameter typically from 10 to 120 cm (about 4 to 48 inches). Most pipelines are buried at a typical depth of about 1–2 metres (about 3 to 6 feet). The oil is kept in motion by pump stations along the pipeline, and usually flows at speed of about 1 to 6 m/s. Multi-product pipelines are used to transport two or more different products in sequence in the same pipeline. Usually in multi-product pipelines there is no physical separation between the different products. Some mixing of adjacent products occurs, producing interface. At the receiving facilities this interface is usually absorbed in one of the product based on pre-calculated absorption rates.

Crude oil contains varying amounts of wax, or paraffin, and in colder climates wax buildup may occur within a pipeline. Often these pipelines are inspected and cleaned using pipeline inspection gauges pigs, also known as scrapers or Go-devils. Smart pigs are used to detect anomalies in the pipe such as dents and holes in the coating. These devices are launched from pig-launcher stations and travel through the pipeline to be received at any other station down-stream, cleaning wax deposits and material that may have accumulated inside the line.

For natural gas, pipelines are constructed of carbon steel and varying in size from 2 inches (51 mm) to over 60 inches (1,500 mm) in diameter, depending on the type of pipeline. The gas is pressurized by compressor stations and is odorless unless mixed with a mercaptan odorant where required by a regulating authority.

AQUEDUCT

Two millennia ago the ancient Romans made use of large aqueducts to transport water from higher altitudes by building the aqueducts in graduated segments that allowed gravity to push the water along until it reached its destination. Hundreds of these were built throughout Europe and elsewhere, and along with flour mills were considered the lifeline of the Roman Empire. The ancient Chinese also made use of channels and pipe systems for public works. The infamous Han Dynasty court eunuch Zhang Rang (d. 189 AD) once ordered the engineer Bi Lan to construct a series of square-pallet chain pumps outside the capital city of Luoyang. These chain pumps serviced the

Text 1

I. Study the following words.

1. urban sprawl – разрастание города
2. sled – сани
3. dwindle – сокращаться, убывать, уменьшаться
4. macadam – щебень, щебеночная дорога
5. short-haul – относящийся к перевозкам на короткие дистанции
6. tar-paved road – дорожный деготь, гудрон
7. tarmac – дегтебетон

II. Read and translate the text.

TRANSPORTATION

Transport or **transportation** is the movement of people and goods from one location to another. Modes of transport include air, rail, road, water, cable, pipeline, and space. The field can be divided into infrastructure, vehicles, and operations. Transport infrastructure consists of the fixed installations necessary for transport, and may be roads, railways, airways, waterways, canals and pipelines, and terminals such as airports, railway stations, bus stations, warehouses, trucking terminals, refueling depots (including fueling docks and fuel stations), and seaports. Terminals may be used both for interchange of passengers and cargo and for maintenance. Vehicles traveling on these networks may include automobiles, bicycles, buses, trains, trucks, people, helicopters, and aircraft. Operations deal with the way the vehicles are operated, and the procedures set for this purpose including financing, legalities and policies. In the transport industry, operations and ownership of infrastructure can be either public or private, depending on the country and mode. Passenger transport may be public, where operators provide scheduled services, or private. Freight transport has become focused on containerization, although bulk transport is used for large volumes of durable items. Transport plays an important part in economic growth and globalization, but most types cause air pollution and use large amounts of land. While it is heavily subsidized by governments, good planning of transport is essential to make traffic flow, and restrain urban sprawl.

History. Humans' first means of transport were walking and swimming. The domestication of animals introduces a new way to lay the burden of transport on more powerful creatures, allowing heavier loads to be hauled, or humans to ride the animals for higher speed and duration. Inventions such as the wheel and sled helped make animal transport more efficient through the introduction of vehicles. Also water transport, including rowed and sailed

vessels, dates back to time immemorial, and was the only efficient way to transport large quantities or over large distances prior to the Industrial Revolution. The first forms of road transport were horses, oxen or even humans carrying goods over dirt tracks. Paved roads were built by many early civilizations, including Mesopotamia and the Indus Valley Civilization. The Persian and Roman empires built stone-paved roads to allow armies to travel quickly. Deep roadbeds of crushed stone underneath ensured that the roads kept dry. The medieval Caliphate later built tar-paved roads. The first watercrafts were canoes cut out from tree trunks. Early water transport was accomplished with ships that were either rowed or used the wind for propulsion, or a combination of the two. The importance of water has led to most cities that grew up as sites for trading, being located on rivers or at sea, after at the intersection of two bodies of water. Until the Industrial Revolution, transport remained slow and costly, and production and consumption were located as close to each other as feasible. The Industrial Revolution in the 19th century saw a number of inventions fundamentally change transport. With telegraphy, communication became instant and independent of transport. The invention of the steam engine, closely followed by its application in rail transport, made land transport independent of human or animal muscles. Both speed and capacity increased rapidly, allowing specialization through manufacturing being located independent of natural resources. The 19th century also saw the development of the steam ship that sped up global transport. The development of the combustion engine and the automobile at the turn into the 20th century, road transport became more viable, allowing the introduction of mechanical private transport. The first highways were constructed during the 19th century with macadam. Later, tarmac and concrete became the dominant paving material. In 1903, the first controllable airplane was invented, and after World War I, it became a fast way to transport people and express goods over long distances. After World War II, the automobile and airlines took higher shares of transport, reducing rail and water to freight and short-haul passenger. Spaceflight was launched in the 1950s, with rapid growth until the 1970s, when interest dwindled. In the 1950s, the introduction of containerization gave massive efficiency gains in freight transport, permitting globalization. International air travel became much more accessible in the 1960s, with the commercialization of the jet engine. Along with the growth in automobiles and motorways, this introduced a decline for rail and water transport.

III. Which statement best expresses the main idea of the text? Why did you eliminate the other choices?

1. Transport plays an important part in people’s life.

Freight on board, or free on board (FOB) – the exporter delivers the goods at the specified location (and on board the vessel). Costs paid by the exporter include load and lash, including securing cargo not to move in the ships hold, protecting the cargo from contact with the double bottom to prevent slipping, and protection against damage from condensation. For example, “FOB Kunming Airport” means that the exporter delivers the goods to the airport, and pays for the cargo to be loaded and secured on the plane. The exporter is bound to deliver the goods at his cost and expense. In this case, the freight and other expenses for outbound traffic are borne by the importer.

Cost and freight (C&F, CFR, CNF): Insurance is payable by the importer, and the exporter pays the ocean shipping/air freight costs to the specified location. For example, C&F Los Angeles (the exporter pays the ocean shipping/air freight costs to Los Angeles). Many of the shipping carriers (such as UPS, DHL, FedEx) offer guarantees on their delivery times. These are known as GSR guarantees or “guaranteed service refunds”; if the parcels are not delivered on time, the customer is entitled to a refund.

Cost, insurance, and freight (CIF): Insurance and freight are all paid by the exporter to the specified location. For example, at CIF Los Angeles, the exporter pays the ocean shipping/air freight costs to Los Angeles including the insurance).

The term “best way” generally implies that the shipper will choose the carrier who offers the lowest rate (to the shipper) for the shipment. In some cases, however, other factors, such as better insurance or faster transit time will cause the shipper to choose an option other than the lowest bidder.

PIPELINE TRANSPORT

Pipeline transport is the transportation of goods through a pipe. Most commonly, liquid and gases are sent, but pneumatic tubes that transport solid capsules using compressed air have also been used.

As for gases and liquids, any chemically stable substance can be sent through a pipeline. Therefore sewage, slurry, water, or even beer pipelines exist; but arguably the most valuable are those transporting fuels: oil (oleoduct), natural gas (gas grid) and biofuels.

There is some argument as to when the first oil pipeline was constructed. However, some say pipeline transport was pioneered by Vladimir Shukhov and the Branobel company in the late 19th century. Others say oil pipelines originated when the Oil Transport Association first constructed a 2-inch (51 mm) wrought iron pipeline over a 6-mile (9.7 km) track from an oil field

- Compared with a rigid vehicle, a semi-trailer truck has a turning circle smaller than its overall length making it more maneuverable.
- Because of the longer overall length of the cargo bed, a semi-trailer can haul longer objects (tree trunks, pipings, beams, railway track) than a full trailer.
- Given equal lengths of the composition, a semi-trailer has greater load capacity, since the drawbar adds to the overall length of the composition.
- A semi-trailer has a better ratio between tare and cargo weights.
- A semi-trailer leads to more weight on the driven axles of the tractor than a truck plus trailer combination, an advantage on snow or mud.

Disadvantages

- Since a semi-trailer rests on top of a tractor it has a higher centre of gravity which makes it more prone to tipping than a rigid vehicle.
- Articulated vehicles can be more difficult to drive in snow and ice since the trailer loses traction more easily than a rigid truck. Using the retarder and/or engine brake only worsens the situation, making the composition more prone to jackknifing.
- A tractor-trailer composition is more likely to jackknife on ice because of the of the semi-trailer weighing significantly more than the tractor.
- A rigid truck can be used without a trailer, whereas a semi-tractor has no use on its own.

Notes.

1. semi-trailer – полуприцеп
2. front axle – передняя ось
3. dolly – «долли», операторская тележка, платформа
4. prime-mover truck – грузовой автомобиль-тягач
5. haulage – буксировка, транспортировка, перевозка
6. to shunt – перемещать, передвигать,
7. drawbar – брус автосцепки
8. tare – тара, определять массу тары
9. prone – склонный, предрасположенный (к чему-либо)
10. tipping – опрокидывание
11. worsen – ухудшаться
12. jackknife – большой складной карманный нож

TERMS OF SHIPMENT

Common trading terms used in shipping goods internationally include:

2. The advance in land transport came with the invention of the combustion engine.
3. The Industrial Revolution had a great influence on the development of transport.

IV. Answer the following questions.

1. What is transportation?
2. How did the Industrial Revolution in the 19th century change transport?
3. What influenced the introduction of mechanical private transport?
4. Why was it important to build good roads?
5. When were the first paved roads built?
6. Why does transport play an important role?

V. Locating information. Find the passage in the text where the following ideas are expressed. Give the line references.

1. Terminals may both be used for interchange of passengers and cargo and for maintenance.
2. Passenger transport may be public or private.
3. Water transport dates back to time immemorial.
4. The importance of water has led to most cities that grew up as sites for trading.
5. The Industrial Revolution in the 19th century saw a number of inventions change transport.
6. The 19th century saw the development of the steam ship.
7. Tarmac and concrete became the dominant paving material.
8. After World War II, the automobile and airlines took higher shares of transport.
9. International air travel became much more accessible in the 1960s.
10. Transport is the movement of people and goods from one location to another.

VI. Understanding the passage. Decide whether the following statements are true or false (T/F) or there is no information by referring to the text. Then make the necessary changes so that the false statements become true.

- | | |
|----------|----------|
| T | F |
|----------|----------|
1. Terminals may only be used for interchange of passengers and cargo.
 2. Passenger transport is private.
 3. The first forms of road transport were horses, oxen or even humans.
 4. The importance of water has led to most cities growing.
 5. After the Industrial Revolution, transport remained slow and costly.

6. With telegraphy, communication became instant and independent of transport.
7. Speed and capacity increased rapidly, allowing specialization through manufacturing being located independent of natural resources.
8. The 17th century saw the development of the steam ship.
9. Before World War II, the automobile and airlines took higher shares of transport.
10. The growth in automobiles and motorways, jet engine introduced a decline for rail and water transport.

VII. Insert the missing words.

1. Transport is performed by modes, such as _____, _____, _____, _____, _____, and _____.
2. Freight transport has become focused on _____, although _____ is used for large volumes of durable terms.
3. Also _____, including rowed and sailed vessels, dates back to time immemorial.
4. Paved roads _____ by the _____, to allow armies to travel quickly.
5. The first _____ were _____ cut out from _____.
6. The 19th century also saw the development of the _____, that sped up _____.
7. The first ... were constructed during the 19th century with _____.
8. Spaceflight was _____ in the 1950s, with rapid growth until the 1970s, when interest _____.
9. _____ became much more accessible in the 1960s.
10. Along with the _____ and _____, this introduced a decline for rail and water transport.

VIII. Refer back to the text and find synonyms (i.e. words with a similar meaning) for the following words.

1. to grow
2. to accomplish
3. to construct
4. to locate
5. to carry

7. shunpiking – езда по малонагруженной дороге
8. bucolic interlude – пасторальная прелюдия
9. locale – место действия
10. demise – сдача недвижимости в аренду

SEMI-TRAILER

A **semi-trailer** is a trailer without a front axle. A large proportion of its weight is supported by a road tractor, by a detachable front axle assembly known as a dolly, or by the tail of another trailer. A semi-trailer is normally equipped with landing gear (legs which can be lowered) to support it when it is uncoupled. A road tractor coupled to a semi-trailer is often called a semi-trailer truck or *semi*, or in the UK an articulated lorry. In Australian English, the tractor unit is usually referred to as a *prime-mover*; and the combination of a prime-mover and trailer is known as a *semi-trailer* or *semi*. Semi-trailers with two trailer units are *B-Doubles* or *road trains*. A B-double consists of a prime mover towing two semi-trailers, where the first semi-trailer is connected to the prime mover by a fifth wheel coupling and the second semi-trailer is connected to the first semi-trailer by a fifth wheel coupling. A *road train* means a combination, other than a B-Double, consisting of a motor vehicle towing at least two trailers (counting as a single trailer a converter dolly supporting a semi-trailer).

Advantages

In road haulage, semi-trailers predominate over full-trailers because of their flexibility.

- The trailers can be coupled and uncoupled quickly, allowing them to be shunted for loading and to be trunked between depots.
- In the event of a breakdown, a tractor unit can be exchanged quickly and the load delivered to its destination without undue delay and without having to trans-ship.
- It is also possible to use a dolly to tow a semi-trailer behind a rigid truck, or behind another semi-trailer.
- Special tractors (known as *tugs*, *yard dogs*, switchers, jockey horses, *yard trucks* or *shunts*) are often used for internal transport, for example, manoeuvring semi-trailers at a depot or loading and unloading ferries. These tractors may lift the coupling so that the trailer legs clear the ground.
- Compared with a full scale trailer, a semi-trailer attached to a tractor unit is easier to reverse, since it has only one turning point (the coupling), whereas a full trailer has two turning points (the coupling and the drawbar attachment).

common use in the names of these roadways and companies, and is essentially used interchangeably with *toll road* in current terminology. In the United States, toll roads began with the Lancaster Turnpike in the 1790s, within Pennsylvania, connecting Philadelphia and Lancaster. In New York State, the Great Western Turnpike was started in Albany in 1799 and eventually extended, by several alternate routes, to near what is now Syracuse, New York. Toll roads peaked in the mid 19th century, and by the turn of the twentieth century most toll roads were taken over by state highway departments. The demise of this early toll road era was due to the rise of canals and railroads, which were more efficient (and thus cheaper) in moving freight over long distances. Roads wouldn't again be competitive with rails and barges until the first half of the 20th century when the internal combustion engine replaces draft animals as the source of motive power. With the development, mass production, and popular embrace of the automobile, faster and higher capacity roads were needed. In the 1920s limited access highways appeared. Their main characteristics were dual roadways with access points limited to (but not always) grade-separated interchanges. Their dual roadways allowed high volumes of traffic, the need for no or few traffic lights along with relatively gentle grades and curves allowed higher speeds. The first limited access highways were *Parkways*, so called because of their often park-like landscaping and, in the metropolitan New York City area, they connected the region's system of parks. When the German Autobahns built in the 1930s introduced higher design standards and speeds, road planners and road-builders in the United States started developing and building toll roads to similar high standards. The Pennsylvania Turnpike, which largely followed the path of a partially-built railroad, was the first, opening in 1940. After 1940 with the Pennsylvania Turnpike, toll roads saw resurgence, this time to fund limited access highways. In the late 1940s and early 1950s, after World War II interrupted the evolution of the highway, the US resumed building toll roads. They were to still higher standards and one road, the New York State Thruway, had standards that became the prototype for the U.S. Interstate Highway System. Several other major toll-roads which connected with the Pennsylvania Turnpike were established before the creation of the Interstate Highway System. These were the Indiana Toll Road, Ohio Turnpike, and New Jersey Turnpike.

Notes.

1. toll road – платная (автомобильная) дорога
2. rolling resistance – сопротивление качению
3. to mitigate – смягчать, уменьшать
4. to mire in mud – завязнуть в грязи
5. to lessen – уменьшать, сокращать
6. toll house – здание заставы для сбора платы за проезд

Now refer back to the text and find antonyms (i.e. words with an opposite meaning) for the following words.

1. large
2. efficient
3. independent
4. fast
5. solid

IX. Translate the sentences from Russian into English.

1. Транспорт – это совокупность средств, предназначенных для перемещения людей, грузов из одного места в другое.
2. Транспорт включает в себя следующие виды: водный, воздушный и наземный транспорт.
3. Пассажирский транспорт может быть общественным, который предоставляет регулярные услуги, или частным.
4. Грузовой транспорт используется для перевозок грузов.
5. Первыми формами дорожного транспорта были лошади и волы, перевозившие товары по грязным дорогам.
6. До промышленной революции транспорт оставался медленно развивающейся и дорогостоящей отраслью.
7. Промышленная Революция 19 в. послужила фундаментальному развитию транспорта.
8. Первые дороги были из щебня.
9. Позже щебень и бетон стали основными материалами дорожного покрытия.
10. Международное воздушное сообщение стало намного более доступным в 1960-х гг. с организацией поточного производства реактивных двигателей.

X. Retell the text.

Text 2

I. Study the following words and phrases.

1. freight – перевозка грузов по воде
2. to haul – тянуть, перевозить
3. to span – протянуться (через)
4. to propel – приводить в движение
5. beasts of burden (pack animals) – вьючные животные

II. Read and translate the text.

KINDS OF TRANSPORTATION

Part 1

There are three main kinds of transportation: (1) land, (2) water, and (3) air. Land transportation depends mainly on wheeled vehicles, especially automobiles, trains, and trucks. Ships and boats are the most important water vehicles. Air transportation depends almost entirely on airplanes.

Each kind of transportation can further be classified according to whether the vehicles are engine powered or engineless. Most engine-powered vehicles have gasoline, diesel, or jet engines. The majority of engineless vehicles are powered by the muscles of human beings or animals or by natural forces, such as the wind or flowing water.

Engine-powered transportation has many advantages over engineless transportation. It is usually faster, more dependable, and can carry greater loads. However, such transportation is costly. Most kinds of engine-powered vehicles cost from several thousands to many millions of dollars, depending on the type of vehicle. In most cases, each type of vehicle also requires certain supporting facilities. Automobiles require roads. Trains must have tracks. Airplanes require airports. Ships need docks and ports. All these facilities are expensive to build and maintain. Every form of engine-powered transportation also requires a source of energy. The combined cost of the vehicles, supporting facilities, and energy makes engine-powered transportation extremely expensive.

Engine-powered vehicles are the chief means of transportation in industrially developed countries. Engine-powered vehicles also provide transportation in the urban areas of most developing countries, including many African, Asian, and Latin American nations. However, many people who live in rural areas of these countries still rely on the kinds of transportation their ancestors used hundreds or thousands of years ago.

Land transportation is the most common kind of transportation by far. In many cases, it is the only suitable or available transportation.

Engine-powered land transportation. Automobiles, buses, motorcycles, snowmobiles, trains, and trucks are the chief engine-powered land vehicles. All these vehicles except snowmobiles ride on wheels. Pipelines are another important form of engine-powered land transportation.

Automobiles, buses, and trucks are the main modern road vehicles. In areas well served by roads, they can provide a variety of transportation services. Automobiles enable people to travel whenever and by whatever

For fresh and frozen goods refrigerator trucks or reefers (container) are used. In Australia road trains replace rail transport for goods on routes throughout the center of the country. B-doubles and semi-trailers are used in urban areas because of their smaller size. Low-loader or flat-bed trailers are used to haul containers, see containerization, in intermodal transport.

Notes.

1. rig – транспортное средство (особенно грузовик)
2. consignee – грузополучатель
3. A Bill of Lading – коносамент, транспортная накладная
4. a free port – свободный порт
5. tachograph – тахограф, самопишущий тахометр
6. a bunk – спальное место
7. hazardous – опасный, рискованный
8. to affix a label – прикреплять ярлык
9. tank truck – автомобиль-цистерна, бензовоз
10. tank container – контейнер-цистерна
11. reefer – холодильник,
12. semi-trailer – полуприцеп
13. flat-bed trailer – прицеп с безбортовой платформой

TOLL ROADS

Early toll roads were usually built by private companies under a government franchise. They typically paralleled or replaced routes already with some volume of commerce, hoping the improved road would divert enough traffic to make the enterprise profitable. Plank roads were particularly attractive as they greatly reduced rolling resistance and mitigated the problem of getting mired in mud. Another improvement, better grading to lessen the steepness of the worst stretches, allowed draft animals to haul heavier loads. A *toll road* in the United States is often called a *turnpike*. The term *turnpike* probably originated from the gate, often a simple pike, which blocked passage until the fare was paid at a *toll house* (or *toll booth* in current terminology). When the toll was paid the pike, which was mounted on a swivel, was turned to allow the vehicle to pass. Tolls were usually based on the type of cargo being transported, not the type of vehicle. The practice of selecting routes so as to avoid tolls is called shunpiking. This may be simply to avoid the expense, as a form of economic protest (or boycott), or simply to seek a road less traveled as a bucolic interlude. Companies were formed to build, improve, and maintain a particular section of roadway, and tolls were collected from users to finance the enterprise. The enterprise was usually named to indicate the locale of its roadway, often including the name of one of both of the termini. The word *turnpike* came into

9. Конструкция и плохое состояние большинства междугородних путей не дает возможности поездам на этих маршрутах развивать высокую скорость.
10. Магнитные силы толкают поезд вперед.

X. Make up an outline of the text.

XI. Retell the text.

SUPPLEMENTARY READING

TRUCKING AND HAULING

Trucking companies (AE) or haulers/hauliers (BE) accept cargo for road transport. Truck drivers operate either independently working directly for the client or through freight carriers or shipping agents. Some big companies (e.g. grocery store chains) operate their own internal trucking operations. In the U.S. many truckers own their truck (rig), and are known as owner-operators. Some road transportation is done on regular routes or for only one consignee per run, while others transport goods from many different loading stations/shippers to various consignees. On some long runs only cargo for one leg of the route (to) is known when the cargo is loaded. Truckers may have to wait at the destination for the return cargo (from). A Bill of Lading issued by the shipper provides the basic document for road freight. On cross-border transportation the trucker will present the cargo and documentation provided by the shipper to customs for inspection. This also applies to shipments that are transported out of a Free port. To avoid accidents caused by fatigue, truckers have to keep to strict rules for drivetime and required rest periods known in the U.S. as hours of service, and in the E.U. as drivers working hours. Tachographs record the times the vehicle is in motion and stopped. Some companies use two drivers per truck to ensure uninterrupted transportation; with one driver resting or sleeping in a bunk in the back of the cab while the other is driving. Truck drivers often need special licenses to drive, known in the U.S. as a commercial driver's license. In the U.K. a Large Goods Vehicle license is required. For transport of hazardous materials truckers need a license, which usually requires them to pass an exam (e.g. in the EU). They have to make sure they affix proper labels for the respective hazard(s) to their vehicle. Liquid goods are transported by road in tank trucks (AE) or tanker lorries (BE) or special tank containers for intermodal transport. For unpackaged goods and liquids weigh stations confirm weight after loading and before delivery. For transportation of live animals special requirements have to be met in many countries to prevent cruelty to animals.

route they choose. Buses carry passengers along fixed routes between and within cities. Trucks can provide door-to-door freight service. In Europe and Japan, many people drive motorcycles to and from work. In the United States, people use motorcycles mainly for recreation.

Unlike road vehicles, trains ride on tracks. As a result, trains usually cannot provide door-to-door freight service as can trucks or convenient connecting services such as buses. But trains can haul far heavier loads than trucks can. They can also carry many more passengers than buses can.

Snowmobiles skim across ice or snow. The vehicles have two skis at the front and a moving track at the rear. An engine powers the track, which propels the vehicle. People use snowmobiles mainly in far northern regions that are snow covered during much of the year.

Pipelines provide transportation, but the pipes themselves do not move. Most pipelines are built across land, but some spin rivers or other bodies of water. Pipelines transport chiefly liquids and gases, especially petroleum and natural gas. Engine-powered pumps force the liquid or gas through the pipes.

Engineless land transportation. Walking is the most elementary means of transportation. Carrying a load on one's back or head or using animals to carry loads is also elementary. Animals used for this purpose are called pack animals or beasts of burden. They include camels, donkeys, elephants, horses, llamas, and oxen. People use pack animals mainly in regions that lack modern roads. Such regions include many deserts, mountainous areas, and jungles.

People use their muscle power to move such wheeled vehicles as carts, bicycles, and pedicabs. A cart is a small box-shaped vehicle with two or four wheels and an open top.

A person may either push or pull a cart, whichever is more convenient. Bicycles are two-wheeled vehicles that the rider powers by means of two pedals. Many people in European and Asian countries ride bicycles to and from work. A pedicab resembles a bicycle but has two rear wheels instead of one. It also has a passenger carriage at the front or rear. Pedicabs are used as taxicabs and even as school buses in some Asian countries.

Animal-drawn carts and wagons are a major means of transportation in rural areas of developing countries. Carts may be pulled by dogs, donkeys, horses, or oxen. Wagons are large four-wheeled carts that can carry heavy loads. Therefore, they must be pulled by exceptionally strong animals, such as oxen or draft horses.

III. Answer the questions.

1. How can each kind of transportation be classified?
2. What do automobiles, trains, airplanes, ships require?
3. What kinds of vehicles are the chief means of transportation?

4. What are the main advantages of engine-powered transportation?
5. How do people usually carry loads in jungles, deserts, rural areas and mountainous areas?

IV. Insert the missing words and translate the sentences.

1. However, such transportation is _____.
2. Every form of engine-powered transportation also _____ a source of energy.
3. All these _____ except snowmobiles ride on wheels.
4. Trucks can _____ door-to-door freight service.
5. Unlike road vehicles, trains ride on _____.
6. _____ transport chiefly liquids and gases.
7. Walking is the most _____ means of transportation.
8. People use _____ mainly in regions that lack modern roads.
9. _____ are two-wheeled vehicles that the rider powers by means of two pedals.
10. Therefore, they must be _____ by exceptionally strong animals, such as oxen and draft horses.

V. Which statement best expresses the main idea of the text?

1. Talking around kinds of transportation.
2. Advantages and disadvantages of modern transportation.
3. Transportation serves people.

VI. Locating information. Find the passage in the text where the following ideas are expressed. Give the line references.

1. The main modern road vehicles.
2. Means of transport which cannot provide door-to-door freight service.
3. The main features of engine-powered transportation.
4. Important form of engine-powered land transportation which doesn't move itself.
5. Special means of transportation in rural areas.
6. The main features of engine-powered and engineless transportation.
7. Vehicles used in far northern regions.
8. Pack animals help people to carry loads.
9. Vehicles powered by the muscles of people.

8. People movers ___ passengers along specially constructed guide ways in driverless, electrically ___ cars.
9. Railroads could help ___ energy if they attracted passengers away from air and ___ travel.
10. The design and poor condition of most intercity tracks prevents trains on those routes from ___ at high speeds.

VIII. Refer back to the text and find synonyms for the following words.

1. mild
2. risk, danger
3. to abolish, to destroy
4. to forbid, to ban
5. to preserve

Now refer back to the text and find antonyms for the following words.

1. slowly
2. abundance
3. to slow down
4. to produce
5. encourage

IX. Translate the sentences from Russian into English.

1. Проблемы транспортных перевозок особенно остро ощущаются в странах, которые сильно зависят от автомобильных перевозок.
2. Изношенные или поврежденные рельсы становятся причиной большинства крушений.
3. Железнодорожные компании имеют программы по замене рельсовых путей.
4. Высокие цены на нефть приводят к более высокой стоимости перевозок, что в свою очередь поднимает цены на перевозку товаров.
5. Развитые страны сталкиваются с трудной проблемой, они должны быть уверены, что транспортные системы имеют достаточно топлива для нормального функционирования.
6. Американское правительство установило стандарт контроля на загрязнения для новых машин.
7. Легкий железнодорожный транспорт не производит выхлопные газы (дым) как автобусы, и он ездит более плавно и бесшумно, чем большинство метро.
8. Поезда потребляют меньше энергии, чем автомобили, самолеты, автобусы.

7. Main features of magnetic levitation trains.
8. The safest kind of transportation is an airliner.
9. High-speed electric trains can reach a speed of 130mph.
10. Many cities are trying to improve their transport facilities.

VI. Understanding the passage. Decide whether the following statements are true or false (T/F) or there is no information by referring to the text. Then make the necessary changes so that the false statements become true.

T F

1. Maglev trains are expected to travel more than 300 mph.
2. Trains use much energy per passenger than do automobiles, airplanes and buses.
3. These standards prevented American automakers to produce smaller, lighter cars.
4. In the United States more people are killed in train derailments every year than in all other transportation accidents combined.
5. Energy experts warn that the world's supply of inexpensive petroleum is being used up rapidly.
6. The major cause of congestion in towns is the interruption to the free flow of traffic by cross traffic at junctions.
7. Higher petroleum prices result in higher transportation cost.
8. Many cities plagued by traffic jams and air pollution never take steps to reduce automobile traffic.
9. Large airports have a growing amount of private plane traffic.
10. Electric vehicles are expected to provide an important option for making road transportation sustainable.
11. Fuel conservation is necessary because of the threat of a serious fuel shortage.

VII. Insert the missing words and translate the sentences.

1. Most automobiles ___ could be prevented if every driver obeyed all traffic laws and rules.
2. But heavy air traffic at major airports has increased the ___ of commercial flying.
3. Train ___ are a problem on railroads in the USA.
4. The railroad companies claim that they need federal ___ help to replace all there worn-out or ___ tracks.
5. The ___ of petroleum leveled off in the 1980s.
6. Automobiles are the chief cause of traffic ___ in urban areas.
7. Public transportation must be ___ before more automobile drivers can be ___ to use it.

VII. Understanding the passage. Decide whether the following statements are true or false (T/F) or there is no information by referring to the text. Then make the necessary changes so that the false statements become true.

T F

1. Most engine-powered vehicles have gasoline, diesel or jet engines.
2. Ships and boats are less important water vehicles.
3. Engine-powered transportation has no advantages over engineless transportation.
4. Minicabs are the most convenient means of transportation.
5. Land transportation is the only suitable or available transportation.
6. Hiking is the most elementary means of transportation.
7. People use pack animals mainly in regions with modern roads.
8. A cart is a small box-shaped vehicle with two or four wheels.
9. In mountainous areas and deserts people ride bicycles to and from work.
10. A coach could not take many people and the fares were high.

VIII. Refer back to the text and find synonyms for the following words.

1. to support
2. sort
3. rest
4. aim
5. useful

Refer back to the text and find antonyms for the following words.

1. disadvantage
2. light
3. to pull
4. weak
5. bottom

IX. Translate into English.

1. Большинство безмоторных транспортных средств приводится в движение с помощью силы человека или животных, а также с помощью природных сил, таких как ветер или вода.
2. Моторные транспортные средства – это главные средства перевозки в промышленно развитых странах.
3. Автобусы перевозят пассажиров по установленным маршрутам между городами и внутри городов.
4. Почти все новейшие авиалайнеры и частные самолеты имеют реактивные двигатели.

5. Трубопроводы обеспечивают транспортировку, но сами остаются неподвижны.
6. Люди обычно используют снегомобили в основном в отдаленных северных районах, которые покрыты снегом большую часть года.
7. Любому моторному транспортному средству нужен источник энергии.
8. Ходьба – это самое простое средство передвижения.
9. Поезда могут перевозить более тяжёлые грузы, чем грузовые автомобили.
10. Многие люди, живущие в сельских районах, все еще полагаются на те виды транспортных перевозок, которые их предки использовали сто или тысячу лет тому назад.

X. Retell the text.

Text 3

I. Study the following words and phrases.

1. sturdy – сильный, крепкий
2. draft horse – тягловая лошадь
3. dugout – челнок (тип лодки)
4. sampan – сампан (тип лодки)
5. tugboat – буксирное судно
6. junk – джонка (тип лодки)
7. hauling cargo – буксировка груза
8. perishable cargo – перевозка скоропортящегося груза
9. skids – лыжи

II. Read and translate the text.

KINDS OF TRANSPORTATION

(Part 2)

Water transportation depends mainly on boats, ships, and rafts. Any small watercraft is classed as a boat. People use boats chiefly on rivers, canals, and lakes. A ship is a larger vessel sturdy enough for ocean travel. A raft is a floating platform constructed of such materials as logs or barrels.

Engine-powered water transportation. Nearly all ships and many boats are powered by engines. Most ships specialize in hauling cargo. Cargo ships travel mainly on ocean waters and on bodies of water linked to the ocean, such as the Mediterranean Sea and the Baltic Sea. Some cargo ships operate on large inland waterways, such as the Great Lakes.

The design and poor condition of most other intercity tracks prevents trains on those routes from operating at high speeds.

High-speed electric trains provide swift intercity service in Japan and several European countries, including Britain, France, and Italy. Japan's "bullet train," which reaches a speed of 130 mph (210 kph), links cities on the main island of Honshu. The French TGV (train a grande vitesse, or high-speed train), connects Paris with cities in western and southern France. It travels at a top speed of 186 mph (300 kph). Both the bullet train and the TGV have reached higher speeds in test runs.

Engineers are working on a new type of high-speed passenger train called a *magnetic levitation train* or *maglev train*. The track for maglev trains consists of a single guideway, which the vehicle straddles but does not touch when in motion. Magnets on both the guideway and the underside of the train create a powerful magnetic force. This magnetic force lifts the vehicle above the guideway. Magnetic forces also push the train forward. Maglev trains are expected someday to travel more than 300 mph (480 kph). But only low-speed maglev trains are in operation today.

III. Answer the questions.

1. What are the problems of modern transportation?
2. Why have the hazards increased at major airports?
3. Can automobile fuel consumption cause some serious problems? What are they?
4. What intensive actions can improve mass transit service?
5. How could railroads help conserve energy?
6. What can you tell about maglev train?

IV. Which statement best expresses the main idea of the text?

1. Transportation is an essential part of people's social and economic life.
2. Modern transportation causes a lot of problems.
3. Improvements in modern transportation.

V. Locating information. Find the passage in the text where the following ideas are expressed. Give the line references.

1. US government does everything possible to reduce automobile fuel consumption.
2. Problems that railroad companies are trying to get over.
3. High-speed trains which operate in the US.
4. Automobile drivers have poor safety.
5. Developed countries suffer from shortage of fuel.
6. Automobiles are the main producers of environmental problems.

air pollution. Many cities plagued by traffic jams and air pollution have taken steps to reduce automobile traffic in their downtown areas. The U.S. government has established pollution-control standards for new cars. These standards require automakers to manufacture cars that give off cleaner exhausts than earlier models.

Inadequate public transportation facilities. Except for airline facilities, most public transportation facilities in the United States have been largely neglected since the 1940s. Greater use of public transportation would help ease the problems caused by heavy dependence on automobiles. But public transportation must be improved before more automobile drivers can be persuaded to use it.

Improvements in public transportation chiefly involve expanding and upgrading (1) mass transit service and (2) intercity train service.

Improvements in mass transit service. Most cities today cannot afford to build extensive new mass transit facilities. But many cities are trying to improve their existing facilities. For example, a number of cities have speeded up bus service by reserving certain traffic lanes for buses only. More and more communities provide *paratransit services*. Such services include public car and van pools and subscription bus services. The schedules and routes of paratransit vehicles are arranged to suit the passengers' convenience.

Some experts believe electrically powered light rail systems can help improve mass transit in many U.S. cities. Light rail vehicles have several advantages over other kinds of mass transit. They do not produce exhaust fumes as buses do, and they run more smoothly and quietly than most subways. Also, light rail systems cost less to build than subways. Several U.S. cities built light rail systems in the 1970s and 1980s, including Sacramento, San Diego, and San Jose, Calif.

Another type of mass transit facility is the *people mover*. People movers carry passengers along specially constructed guideways in driverless, electrically powered cars. A few U.S. cities, including Detroit and Miami, have people-mover systems that serve downtown areas. However, most people movers operate over short distances in such places as parks and airports.

Improvements in intercity train service. Most developed countries are trying to improve passenger service on major intercity rail routes. Trains use less energy per passenger than do automobiles, airplanes, and buses. Thus, railroads could help conserve energy if they attracted passengers away from air and highway travel.

The only high-speed passenger trains in the United States are *Metroliners*. These high-speed trains operate between New York City and Washington, D.C. They reach speeds of 125 mph (200 kph) on their 225-mile (362-kilometer) run.

Few ships specialize in transporting passengers. However, various types of motorboats carry passengers locally. Some engine-powered boats, especially tugboats, are used in hauling freight. Tugboats have powerful engines that enable them to tow heavily loaded barges. Barges are actually large rafts. Most barges must be pushed or towed. Others have engines and so move under their own power. Barges are used mainly to haul freight along inland waterways.

In general, ships and boats are the slowest engine-powered vehicles. However, engineers have developed two fast-moving water vehicles – hydrofoils and hovercraft.

Hydrofoils skim across the water on skids or runners. Hovercraft or air cushion vehicles, ride above the water on a cushion of air. One or more powerful fans inside the vehicle create the air cushion. Because hydrofoils and hovercraft ride out of the water, they can travel faster than other watercraft of equal horsepower. Most hydrofoils and hovercraft are too small for ocean travel. They are used mainly to carry passengers locally. Some larger hydrofoils and hovercraft are used to haul cargo along inland and coastal waters.

Engineless water transportation. Engineless water vehicles include dugouts, canoes, rowboats, sailboats, and rafts. People use paddles or oars to propel dugouts, canoes, and rowboats. Sailboats are powered by the wind. Rafts may be propelled by paddles, poles, sails, or water currents.

Broad – bottomed sailboats and rowboats are widely used to haul freight in the Far East. The sailboats are called junks, and the rowboats are known as sampans. Large junks have as many as five sails and can carry 100 short tons (91 metric tons) or more. Most sampans haul light cargo. However, many larger sampans have a sail, which enables them to haul heavier loads. In the tropical rain forests of Africa, Asia, and South America, many villagers use dugouts or rafts for transportation along the rivers. Many people of the Pacific Islands use dugouts for travel between islands. Some of the dugouts are equipped with outriggers and sails.

Air transportation depends almost entirely on engine-powered craft, especially airplanes. Engineless vehicles, such as gliders and hot-air balloons, are used mainly for recreation.

Airplanes provide the world's fastest practical means of transporting passengers and freight. Only rocket-powered spacecraft travel faster. Big airliners routinely fly 500 to 600 miles per hour (mph), or 800 to 970 kilometers per hour (kph). Most private planes and some older airliners are powered by gasoline engines and driven by propellers. Nearly all newer airliners and some private planes have jet engines. Supersonic jets fly faster than the speed of sound. These planes travel at about 1,500 mph (2,410 kph).

Most airliners chiefly carry passengers. Even the biggest planes can carry only a fraction of the weight that a ship or train can haul. Air freight rates are high as a result. The high cost limits the shipment of goods by air to expensive, lightweight, or perishable cargo. Such goods include electronic equipment and fresh flowers.

Helicopters, like airplanes, are powered by engines. But helicopters are smaller than most airplanes and cannot fly as fast or as far. Nor can they carry as many passengers as airplanes. Helicopters therefore play a secondary role in air transportation. However, they are much more maneuverable and have certain special uses. For example, helicopters are used in rescue work and in fighting forest fires.

III. Which statement best expresses the main idea of the text?

1. Various means of passengers and cargo transportation.
2. Types and possibilities of water and air transportation.
3. The latest achievements in water and air transportation.

IV. Answer the following questions.

1. Where do people use boats?
2. How are all ships powered?
3. What enables tugboats to tow heavily loaded barges?
4. Why do hydrofoils and hovercraft travel faster?
5. What does air transportation depend on?
6. What are airplanes used for?

V. Locating information. Find the passage in the text where the following ideas are expressed. Give the line references.

1. Various types of vehicles to carry passengers.
2. Two fast-moving water vehicles, developed by engineers.
3. Ships which are specialized in hauling cargo.
4. Any watercraft used on rivers, canals and lakes.
5. Airplanes provide the world's fastest means of transportation.
6. Various vehicles are powered and driven differently.
7. Engineless water transportation powered by wind and used on rivers, lakes.
8. Another means of air transportation which cannot fly fast and far.

Train derailments are a problem on railroads in the United States. Worn-out or damaged tracks cause the majority of the derailments. Railroad companies have track replacement programs. However, the railroad companies claim that they need federal financial help to replace all their worn-out or damaged tracks.

Declining fuel reserves. Gasoline and other fuels made from petroleum supply nearly all the energy for engine-powered transportation. Energy experts warn that the world's supply of inexpensive petroleum is being used up rapidly. At the current rate of use, the supply may be exhausted by the mid - 2000s. Developed countries therefore face a difficult problem. They must ensure that their major transportation systems have enough fuel to function normally, but must do all they can to conserve fuel. Fuel conservation is necessary not only because of the threat of a serious fuel shortage but also because of the high price of petroleum. Higher petroleum prices result in higher transportation costs, which drive up the prices of transported goods. In the 1970s, petroleum prices rose sharply, adding to an increase in the costs of many goods. The cost of petroleum leveled off in the 1980s.

Automobiles consume more than half the energy used for transportation in the United States. They therefore contribute heavily to the nation's energy supply problems. To help reduce automobile fuel consumption, the U.S. government sets gasoline-mileage standards for new cars. These standards encourage American automakers to produce smaller, lighter cars, which travel farther per gallon of gasoline than larger models.

*One mile equals 1.6093 kilometers. One gallon equals 3.7854 liters. A passenger-mile is one passenger carried one mile.

*Includes trains with diesel or electric engines.

Source: Center for Transportation Research, Argonne National Laboratory.

Energy use in intercity passenger transportation

Kind of vehicle	Average number of passengers per trip	Miles vehicle travels per gallon of fuel*	Passenger-miles per gallon of fuel*
Train*	188	0.37	69.3
Bus	20	5.9	117.5
Automobile	2.2	26.2	57.6
Jet airliner	89	0.32	28.1

Environmental problems. Automobiles are the chief cause of traffic congestion in urban areas, and their exhaust fumes contribute heavily to urban

10. Федеральное правительство начало приводить в порядок транспортные компании в конце 1800-х, чтобы помешать железным дорогам взимать несправедливые цены за перевозку грузов.

X. Write the summary to the text.

Text 9

I. Study the following words and phrases.

1. derailment – крушение
2. to conserve – сохранять, хранить
3. plague – бедствие, наказание
4. inadequate – не отвечающий требованию
5. severe – острый, серьезный
6. runway – взлетно-посадочная полоса
7. at the current rate of use – при таком темпе потребления
8. traffic congestion – перегруженность уличного движения
9. to persuade – убеждать, уговаривать
10. magnetic levitation – магнитный подъемник

II. Read the text.

CURRENT DEVELOPMENTS

Problems of modern transportation include (1) traffic safety, (2) declining fuel reserves, (3) environmental problems, and (4) inadequate public transportation facilities. These problems are most severe in countries that depend heavily on automobile transportation.

Traffic safety. Most types of high-speed, engine-powered transportation involve traffic safety problems. But automobile drivers have an especially poor safety record. In the United States, more people are killed in automobile accidents every year than in all other transportation accidents combined. Most automobile accidents could be prevented if every driver obeyed all traffic laws and all the rules for safe driving.

Airlines have one of the best safety records in the field of transportation. But heavy air traffic at major airports has increased the hazards of commercial flying. When many airliners await clearance to land or take off, airport approaches and runways become dangerously overcrowded. In addition, large airports have a growing amount of private plane traffic, which makes traffic control even more difficult. This problem could largely be eliminated if private planes were prohibited from flying near large commercial airports.

VI. Understanding the passage. Decide whether the following statements are true or false (T/F) or there is no information by referring to the text. Then make the necessary changes so that the false statements become true.

T F

1. Water transportation depends on people.
2. Some engine-powered boats, especially tugboats are used in hauling passengers.
3. The development of water transportation refers to the 1920s.
4. In general, ships and boats are the slowest engine-powered vehicles.
5. Most sampans haul heavy cargo.
6. In the tropical rain forests of Australia, India and Canada many villagers use dugouts or rafts for transportation along the rivers.
7. Only rocket-powered spacecraft travel faster.
8. When used in a vacuum the rocket engine can produce its thrust.
9. Most airliners chiefly carry goods.
10. Helicopters play the main role in air transportation.

VII. Insert the missing words and translate the sentences.

1. Most ships specialize in _____ cargo.
2. _____ have powerful engines that enable them to tow heavily loaded barges.
3. Hydrofoils _____ across the water on skids or runners.
4. _____ water vehicles include dugouts, canoes, rowboats, sailboats and rafts.
5. Many larger sampans have a _____.
6. Many people of the Pacific Islands use _____ for travel between islands.
7. _____ vehicles, such as gliders and hot air balloons, are used for recreation.
8. Only rocket-powered _____ travel faster.
9. Nearly all newer airliners and some private planes have _____.
10. _____ are used in rescue work and in fighting forest fires.

VIII. Refer back to the text and find synonyms for the following words.

1. chiefly
2. load
3. to force
4. wide
5. delivery

Now refer back to the text and find antonyms for the following words.

1. weak
2. outside
3. top
4. partly
5. public

IX. Translate the sentences from Russian into English.

1. Плот – это плавающая платформа, построенная из таких материалов как брёвна или бочки.
2. Некоторые моторные суда, особенно буксирные суда, используются для перевозки грузов.
3. Баржи в основном используются для перевозки грузов по внутренним водным путям.
4. Одна или несколько мощных лопастей внутри транспортного средства создают воздушную подушку.
5. Широкодонные парусные суда и гребные лодки широко используются для перевозки грузов на Дальнем Востоке.
6. Воздушная перевозка, в основном, всецело зависит от моторных судов, особенно самолётов.
7. Вертолёты меньше чем многие самолёты и они не могут летать так быстро и далеко.
8. Сверхзвуковые реактивные самолеты летают быстрее скорости звука.
9. Высокая стоимость ограничивает перевозки товаров самолётами слишком дорогих, легковесных и скоропортящихся грузов.
10. Многие люди на островах в Тихом океане используют «челноки» чтобы передвигаться между островами.

X. Make an outline of the text.

XI. Write the annotation (10 s-s).

Text 4

I. Study the following words.

1. conveyance – перевозка, транспортировка
2. rail track – рельсовый путь
3. maglev train – поезд на магнитной подвеске
4. box car – крытый вагон
5. freight train – товарный поезд

9. These agencies also set and _____ safety standards for the operation of airplanes and trains.
10. Critics of heavy government regulation believed that it _____ companies from improving services.

VIII. Refer back to the text and find synonyms for the following words.

1. to operate
2. expenditure
3. to compel
4. to decline
5. important

Now refer back to the text and find antonyms for the following words.

1. indirectly
2. just
3. to encourage
4. to fall
5. fair

IX. Translate the sentences from Russian into English.

1. Транспортная перевозка – это одна из ведущих промышленности в мире.
2. Эти производители также поставляют оборудование необходимое для управления транспортными средствами, такими как системы железнодорожных путей и авиасообщений.
3. В Канаде есть две основные авиалинии и два основных железнодорожных сообщения.
4. Почти в каждой стране, все, или большая часть транспортных услуг контролируется местным правительством.
5. Примерно половина нефти, обработанная очистительными заводами в США, перерабатывается в топливо для автомобилей, самолётов и других моторных транспортных средств.
6. Некоторые из больших компаний производителей в мире являются нефтяными компаниями.
7. Намного больше денег тратится на строительство и ремонт дорог.
8. Немногие транспортные системы зарабатывают достаточно с пассажирских билетов, чтобы оплатить все свои расходы.
9. Правительства во всём мире устанавливают правила безопасности для различных видов транспортных перевозок.

VI. Understanding the passage. Decide whether the following statements are true or false (T/F) or there is no information by referring to the text. Then make the necessary changes so that the false statements become true.

T F

1. Private companies own and operate all the airlines and nearly all the railroads in the USA.
2. Companies that make automobiles, buses and trucks rank among the leading manufacturing firms in the world.
3. Related industries play a tiny role in transportation.
4. Throughout most of history, transportation was extremely slow and difficult.
5. In the USA, the Department of Transportation distributes most of the federal funds for transportation.
6. The majority of transportation facilities in the USA depend on private funds.
7. Two main agencies regulate the business practices of U.S. transportation companies.
8. Mass transit systems in every country depend heavily on government financial support.
9. The history of transportation is divided into two stages.
10. Private sector is most deeply involved in transportation in countries where all or much of the industry is owned.

VII. Insert the missing words and translate the sentences.

1. The transportation industry _____ many millions of people.
2. The extent of the _____ of governments varies according to the political and economic systems.
3. _____ manufacturers produce the vehicles on which modern transportation depends.
4. Value added by _____ measures the increase in value of raw materials after they become a finished _____.
5. They _____ among the leading manufacturing firms in the world.
6. These services are _____ by privately owned firms, which are subject to various forms of government regulation.
7. _____ industries include glass, petroleum, steel and tire production.
8. Governments are most deeply _____ in transportation in countries where all or much of the industry is publicly owned.

II. Read and translate the text.

RAILROAD TRANSPORTATION

Rail transport is the means of conveyance of passengers and goods by way of wheeled vehicles running on rail tracks. In contrast to road transport, where vehicles merely run on a prepared surface, rail vehicles are also directionally guided by the tracks they run on. Track usually consists of steel rails installed on sleepers/ties and ballast, on which the rolling stock, usually fitted with metal wheels, moves. However, other variations are also possible, such as slab track where the rails are fastened to a concrete foundation resting on a prepared subsurface. Rolling stock in railway transportation systems generally has lower frictional resistance when compared with highway vehicles, and the carriages and wagons can be coupled into longer trains. The operation is carried out by a railway company, providing transport between train stations or freight customer facilities. Power is provided by locomotives which either draw electrical power from a railway electrification system or produce their own power, usually by diesel engines. Most tracks are accompanied by a signaling system. Railways are a safe land transportation system when compared to other forms of transportation. Railway transportation is capable of high levels of passenger and cargo utilization and energy efficiency, but is often less flexible and more capital-intensive than highway transportation is, when lower traffic levels are considered. The oldest, man-hauled railways date to the 6th century B.C. With the development of the steam engine, it was possible to construct mainline railways that were a key component of the industrial revolution. Also, railways reduced the costs of shipping, and allowed for fewer lost goods. The change from canals to railways allowed for "national markets" in which prices varied very little from city to city. Studies have shown that the invention and development of the railway in Europe was one of the most important technological inventions of the late 19th century for the United States, without which, GDP would have been lower by 7.0% in 1890. In the 1880s, electrified trains were introduced, and also the first tramways and rapid transit systems came into being. Starting during the 1940s, the non-electrified railways in most countries had their steam locomotives replaced by diesel-electric locomotives, with the process being almost complete by 2000. During the 1960s, electrified high-speed railway systems were introduced in Japan and a few other countries. Other forms of rail transportation outside the traditional definitions, such as magnetic-levitation maglev trains have also slowly come into use. A **freight train** or **goods train** is a group of freight cars (US) or goods wagons (UIC) hauled by one or more locomotives on a railway, ultimately transporting cargo between two points as part of the

logistics chain. Trains may haul bulk material, intermodal containers, general freight or specialized freight in purpose-designed cars. When considered in terms of ton-miles (ton-kilometers) hauled per unit of consumed energy, rail transport is more efficient than other means of transportation. Additional economies are often realized with bulk commodities (e.g., coal), especially when hauled over long distances. However, rail freight is often subject to transshipment costs, which may exceed that of operating the train itself, a factor that practices such as containerization aim to minimize. Bulk shipments are less affected by transshipment costs, with distances as short as 30 kilometers (20 miles) sufficient to make rail transport economically viable. However, shipment by rail is not as flexible as by highway, which has resulted in much freight being hauled by truck, even over long distances. Freight teams of wagons pulled by horse, mule, oxen and/or cattle were common in earlier times, and are still used in less developed areas. The main disadvantage of rail freight is its lack of flexibility. For this reason, rail has lost much of the freight business to road transport. Many governments are now trying to encourage more freight onto trains, because of the environmental benefits that it would bring; rail transport is very energy efficient. In Europe (particularly Britain) many manufacturing towns developed before the railway. Many factories did not have direct rail access. This meant that freight had to be shipped through a goods station, sent by train and unloaded at another goods station for onward delivery to another factory. When lorries (trucks) replaced horses it was often economic and faster to make one movement by road. In the United States, particularly in the West and Mid-West towns developed with railway and factories often had direct rail connection. Despite the closure of many minor lines carload shipping from one company to another by rail remains common. Many rail systems have turned to computerized scheduling for trains which has helped add more train traffic to the rails. Overall, most businesses ship their products by rail if they are shipping long distance because it is cheaper to ship in large quantities by rail than by truck; however shipping remains a viable competitor where water transport is available. Economics of scale are achieved because less labor and energy is required to haul the same amount of cargo. Traditional transport of manufactured goods was with boxcars or covered goods wagons, where the goods were manually loaded and unloaded off the wagon. During the 1960s containerization has made this extra level of labour-intensive work unnecessary; while the containers must be moved onto or off the wagons with cranes, the content in the container remains constant from sender to receiver. Containers allow easy change of mode from road and sea and rail. Intermodal freight systems favoring road transport often carry road wheels with the cargo. In some countries rolling highway trains are used; trucks can

competitive. With this end in view, the federal government began to relax some of its controls during the 1970s. By the mid-1980s, the government had removed controls over rates and routes in the airline industry and had greatly reduced its regulation of the railroad and trucking industries.

After deregulation, competition among airlines at first increased, and rates dropped. But in time, many small airlines were taken over by larger airlines. Competition then declined somewhat, and rates began to rise. The number of trucking firms grew after deregulation, and competition in the industry increased.

III. Which statement best expresses the main idea of the text.

1. The development of the transportation system.
2. The transportation industry is a complicated system of communication.
3. Talking on different branches of transportation system.

IV. Answer the following questions.

1. What is the leading industry in the world? Why?
2. What does the transportation industry consist of?
3. What do equipment manufacturers serve for?
4. Who owns and operates all the airlines and railroads in most countries?
5. What role does government play in transportation?
6. Why does the transportation system need some safety rules and heavy regulation?

V. Locating information. Find the passage in the text where the following ideas are expressed. Give the line references.

1. Millions of people work for the transportation system and it is one of the leading industries.
2. The Canadian government owns and operates the airlines and the railroads.
3. The manufacture of transportation equipment is needed to operate the vehicles.
4. Government plays a major role in the transportation industry.
5. Tire production, road construction, petroleum are next very close industries to transportation industry.
6. Agencies that regulate transportation companies in the USA.
7. Transportation agencies that distribute state funds and local funds in the USA and Canada.
8. The government reduced regulation of the railroad and trucking industries not to discourage companies from improving services.
9. The result of competition in the transportation industry.
10. All or most mass transit services are controlled by local governments.

is spent on the other three facilities put together. State and local governments provide most of the funds for airports, roads, and river and harbor facilities. The U.S. government finances all air traffic control operations. It also helps pay the expenses of Amtrak, a semipublic corporation that operates nearly all passenger trains that run between the nation's cities.

Mass transit systems in every country depend heavily on government financial support. Few of the systems earn enough from passenger fares to pay all their expenses. Governments must provide whatever additional funds are needed to keep the mass transit systems in operation.

In the United States, the Department of Transportation distributes most of the federal funds for transportation. Most states and a majority of large metropolitan areas have transportation agencies that distribute state funds and local funds. In Canada, the Canadian Ministry of Transport handles the federal funding of transportation.

Government regulation deals chiefly with transportation safety and the business practices of transportation companies. Governments throughout the world establish safety rules for the various methods of transportation.

In the United States, agencies within the Department of Transportation set and enforce safety standards for the design and manufacture of transportation equipment. These agencies also set and enforce safety standards for the operation of airplanes and trains.

The Canadian Transport Commission sets and enforces safety standards in Canada. State, provincial, and local governments regulate traffic safety on roads and waterways under their control.

Several federal agencies regulate the business practices of U.S. transportation companies. The Interstate Commerce Commission oversees the railroad and domestic shipping industries and interstate trucking. The overseas shipping industry is regulated by the Federal Maritime Commission. The Federal Energy Regulatory Commission oversees natural gas pipeline companies. The commission also regulates those oil pipeline companies that provide commercial service. In Canada, the business practices of transportation companies are regulated chiefly by the Canadian Transport Commission.

The airline, railroad, and trucking industries were long among the most heavily regulated industries in the United States. The federal government began its regulation of transportation companies in the late 1800's, when it moved to prevent the railroads from charging unfair freight rates. Regulation also helped protect transportation companies from unfair competition.

Critics of heavy government regulation believed that it discouraged companies from improving services. These critics further believed that transportation industries would operate more efficiently if they were more

drive straight onto the train and drive off again when the end destination is reached. A system like this is used on the Channel Tunnel between the United Kingdom and France. In other countries, the tractor unit of each truck is not carried on the train, only the trailer. *Piggy back* trains are the fastest growing type of freight trains in the United States, where they are also known as *trailer on flat car* or TOFC trains. There are also roadrailer vehicles, which have two sets of wheels, for use in a train, or as the trailer of a road vehicle. There are also many other types of wagon, such as "low loader" wagons for transporting road vehicles; there are refrigerator vans for transporting food, simple types of open-topped wagons for transporting minerals and bulk material such as coal, and tankers for transporting liquids and gases. Most coal and aggregates are moved in hopper wagons that can be filled and discharged rapidly, to enable efficient handling of the materials. Freight trains are sometimes illegally boarded by individuals who do not wish, or do not have the money, to travel by ordinary means, a practice referred to as "hopping." Most hoppers sneak into train yards and stow away in boxcars. Bolder hoppers will catch a train "on the fly," that is, as it is moving, leading to occasional fatalities, some of which go unrecorded. The act of leaving a town or area by hopping a freight train is sometimes referred to as "catching-out", as in catching a train out of town.

III. Which statement best expresses the main idea of the text? Why did you eliminate the other choices?

1. Rail transportation is used to transport not only people but also cargoes.
2. Rail road is the most important technological innovation.
3. Freight trains replaced man force.

IV. Answer the following questions.

1. What is railroad transportation?
2. Why is railroad a safe land transportation system?
3. What is a freight train?
4. What is the main disadvantage of rail freight?
5. Name different types of wagons.
6. Why are freight trains boarded by passengers?

V. Locating information. Find the passage in the text where the following ideas are expressed. Give the line references.

1. Rolling stock in railway transportation systems generally has lower frictional resistance when compared with highway vehicles.
2. Railways are a safe land transportation system when compared to other forms of transportation.

3. Railway transportation is capable of high levels of passenger and cargo utilization and energy efficiency.
4. Also, railways reduced the costs of shipping, and allowed for fewer lost goods.
5. The main disadvantage of rail freight is its lack of flexibility.
6. Despite the closure of many minor lines carload shipping from one company to another by rail remains common.
7. Economies of scale are achieved because less labor and energy is required to haul the same amount of cargo.
8. There are also many other types of wagon, such as "low loader" wagons for transporting road vehicles.
9. Freight trains are sometimes illegally boarded by individuals who do not wish, or do not have the money.
10. Bolder hoppers will catch a train "on the fly," that is, as it is moving, leading to occasional fatalities, some of which go unrecorded.

VI. Understanding the passage. Decide whether the following statements are true or false (T/F) or there is no information by referring to the text. Then make the necessary changes so that the false statements become true.

T F

1. Rail transport is the means of conveyance of passengers and goods by way of wheeled vehicles running on road.
2. Track usually consists of titanium rails installed on sleepers/ties and ballast.
3. Power is provided by locomotives which either draw electrical power from a railway electrification system or produce their own power.
4. The oldest man-hauled railways date to the 16th century B.C.
5. Rail freight is often subject to transshipment costs.
6. Many rail systems have not turned to computerized scheduling for trains which has helped add more train traffic to the rails.
7. Containers allow easy change of mode from road and sea and rail.
8. Most coal and aggregates are not moved in hopper wagons that can be filled and discharged rapidly.
9. Freight trains are sometimes illegally boarded by individuals.
10. The act of leaving a town or area by hopping a freight train is sometimes referred to as "catching-out".

Motor Company. They rank among the leading manufacturing firms in the world.

Passenger and freight carriers include airlines, intercity bus lines, mass transit companies, pipeline companies, railroads, shipping lines, and trucking firms. In most countries, the central government owns and operates all the airlines and railroads and some or all of the intercity bus lines. The United States is the chief exception. Private companies own and operate all the airlines and nearly all the railroads in the United States. Canada has two major airlines and two major railroads. The Canadian government owns and operates one of the airlines and one of the railroads. The other airline and the other railroad are privately owned and operated. In addition, all of Canada's intercity bus lines are privately owned.

In some countries in Eastern Europe, the central government also owns the intercity bus lines, pipelines, and shipping and trucking lines. In most other industrial countries, including the United States and Canada, these services are provided by privately owned firms, which are subject to various forms of government regulation. In nearly every country, all or most mass transit services are controlled by local governments.

The leading carrier groups in the United States, in order of total income, are (1) trucking companies, (2) airlines, (3) railroads, (4) ship lines, (5) pipeline companies, and (6) intercity bus lines. There are more companies in the trucking group than in any other category. The pipeline group has the fewest companies.

Related industries include glass, petroleum, steel, and tire production; road construction; the selling of new and used automobiles; and the servicing of automobiles. Petroleum production is the leading transportation-related industry in terms of value. About half the petroleum processed by refineries in the United States is made into fuel for automobiles, airplanes, and other engine-powered vehicles. Several of the largest manufacturing companies in the world are petroleum companies.

Government and transportation. Governments are most deeply involved in transportation in countries where all or much of the industry is publicly owned. But even in the United States, where nearly all transportation companies are privately owned, government plays a major role in the transportation industry. This role consists primarily of (1) providing funds for certain transportation facilities and (2) regulating certain aspects of transportation.

Government funding. Four kinds of transportation facilities in the United States depend almost entirely on public funds. They are (1) air traffic control centers, (2) airports, (3) public roads, and (4) river and harbor facilities. Far more money is spent on the building and upkeep of roads than

Text 8

I. Study the following words and phrases.

1. to subject – подвергать, подчинять
2. upkeep – ремонт
3. to enforce – принуждать, заставлять
4. expenses – расходы
5. refinery – очистительный завод
6. value added by manufacture – стоимость добавленная производителем (налог на добавленную стоимость)
7. total income – общий доход
8. harbour facilities – портовые сооружения

II. Read and translate the text.

THE TRANSPORTATION INDUSTRY

Transportation is one of the leading industries in the world. Many of the world's biggest industrial firms earn all or much of their income from the sale of equipment or fuel for transportation. The transportation industry employs many millions of people in countries throughout the world. In the United States alone, about 10 per cent of all workers are directly or indirectly involved in providing transportation.

The transportation industry consists of (1) equipment manufacturers, (2) passenger and freight carriers, and (3) related industries. The equipment manufacturers and passenger and freight carriers are the key organizations. However, the related industries play a vital role in transportation by providing fuel and various services and facilities. In addition, governments throughout the world are involved in transportation. The extent of the involvement of governments varies according to the political and economic systems of different countries.

Equipment manufacturers produce the vehicles on which modern transportation depends. These manufacturers also supply the equipment needed to operate the vehicles, such as railroad tracks and airplane communications systems.

The manufacture of transportation equipment is the leading manufacturing industry in the United States in terms of value added by manufacture. Value added by manufacture measures the increase in value of raw materials after they become a finished product.

Companies that make automobiles, buses, and trucks are by far the largest producers of transportation equipment. The two leading U.S. producers of such motor vehicles are General Motors Corporation and Ford

VII. Insert the missing words.

1. In contrast to _____, where vehicles merely run on a _____.
2. _____ in railway transportation systems generally has lower _____ when compared with highway vehicles.
3. Most tracks are accompanied by a _____.
4. The change from _____ to _____ allowed for "national markets" in which prices varied very little from city to city.
5. During the 1960s, electrified high-speed railway systems were introduced in _____ and a few other countries.
6. Bulk shipments are less affected by _____, with distances as short as 30 kilometers (20 miles) sufficient to make rail transport economically viable.
7. Freight teams of wagons pulled by _____, _____, _____ and/or _____ were common in earlier times, and are still used in less developed areas.
8. Despite the closure of many minor lines _____ from one company to another by rail remains common.
9. A _____ like this is used on the Channel Tunnel between the United Kingdom and France.
10. There are ... vans for transporting _____.

VIII. Refer back to the text and find synonyms (i.e. words with a similar meaning) for the following words.

1. conveyance
2. cargo
3. flexible
4. benefit
5. fatality

Now refer back to the text and find antonyms (i.e. words with an opposite meaning) for the following words.

1. long
2. easy
3. to reduce
4. minor
5. to encourage

IX. Translate the sentences from Russian into English.

1. Железнодорожные перевозки – это средства перевозки пассажиров и товаров на поездах.

2. Рельсовый путь обычно состоит из стальных рельсов, установленных на шпалах.
3. Железнодорожный транспорт является безопасным наземным видом транспорта по сравнению с другими.
4. С появлением парового двигателя, стало возможным строительство железных дорог, что стало ключевым звеном промышленной революции.
5. Товарный поезд – это группа товарных вагонов, перевозящих товары между двумя точками, как часть логической цепи.
6. Первые высокоскоростные поезда появились в Японии в течение 60-х г.
7. Существует много видов вагонов, например, вагоны с низкорамным полуприцепом используются для перевозки автомобилей.
8. Вагоны-холодильники используются для перевозки продуктов питания.
9. Отсутствие гибкости является главным недостатком грузовых перевозок.
10. В 1880 году появились электрические поезда и первые трамваи на улицах городов.

X. Make a plan and retell the text.

Text 5

I. Study the following words.

1. freight – перевозка грузов
2. perishable merchandise – скоропортящиеся товары
3. ton-mile – тонно-миля
4. crate – ящик
5. flatcar – вагон-платформа

II. Read and translate the text.

FREIGHT TRANSPORTATION

Pipelines provide the cheapest means of transporting petroleum and natural gas. The cheapest way to move general cargo is by water. Rail transportation costs about 3 times as much as water transportation, and truck transportation costs about 10 times as much. Air transportation is by far the most expensive way to move freight. It costs nearly 40 times as much as water transportation. Because air transportation is so costly, cargo planes usually carry only expensive, lightweight, or perishable merchandise.

The various means of moving cargo are used for both (1) domestic freight and (2) international freight.

2. recreation
3. important
4. to handle
5. intensive

Now refer back to the text and find antonyms (i.e. words with an opposite meaning) for the following words.

1. to decrease
2. cheap
3. numerous
4. long-distance
5. low

IX. Translate the sentences from Russian into English.

1. Морские перевозки – суда, перевозящие людей и грузы.
2. Водный транспорт является самым крупным грузоперевозчиком в истории.
3. Судоходство может быть торговым, рекреационным или военным.
4. В 1960-х гг перевозки в контейнерах революционизировали морские перевозки, когда грузы перевозились больше чем в одном контейнере.
5. Порт – место на побережье, состоящее из одной или более гаваней, куда корабли могут входить в док, перевозить груз или людей.
6. Водный транспорт отличается высокой провозной способностью и очень низкой себестоимостью перевозок; кроме того, он позволяет перевозить почти любые крупногабаритные грузы.
7. Порт может обслуживать один определенный вид груза или различные виды грузов, такие как зерно, автомобили, жидкие химикаты и др.
8. Существуют различные категории водного транспорта, например, акведук, контейнерная перевозка и буксир.
9. Контейнерная перевозка включает перевозки в цистернах и танкерах.
10. Акведук включает перевозки по трубопроводам, каналам и туннелям.

X. Sum up the text.

7. Some ports have an important, perhaps exclusively military role.
8. Cargo ports handle very different cargo, which has to be loaded and unloaded by very different mechanical means.
9. Most cargo ports handle all sorts of cargo.
10. Water transportation is also very common along rivers and oceans.

VI. Understanding the passage. Decide whether the following statements are true or false (T/F) or there is no information by referring to the text. Then make the necessary changes so that the false statements become true.

T F

1. Sea transport has been the largest carrier of freight in the world.
2. The importance of sea travel for passengers has increased due to aviation.
3. Water transport becomes practical when material delivery is highly time-critical.
4. Containerization revolutionized ship transport in the 1990s.
5. Some ports have an important, perhaps exclusively military role.
6. Cargo ports handle very different cargo.
7. Water transportation is the intentional movement of water over large distances.
8. The individual cargo ports are divided into different operating terminals which handle the different cargoes.
9. The lower friction levels of the canal make it a more economical solution than the pipeline.
10. Water transportation is not also very common along rivers and oceans.

VII. Insert the missing words.

1. Ship transport is _____.
2. Ship transport can be over any distance _____.
3. However water transport becomes _____.
4. "General cargo" is goods packaged _____.
5. Port locations are selected to _____.
6. The port may handle _____.
7. Such ports are known as _____.
8. Container shipment _____.
9. The transportation of water _____.
10. A tugboat is used to pull _____.

VIII. Refer back to the text and find synonyms (i.e. words with a similar meaning) for the following words.

1. to carry

Domestic freight. Most domestic freight traffic involves the transport of cargo between cities within a country. The cargo is carried by airplanes, barges, pipe lines, railroads, ships, and trucks. Freight shipments within cities consist mainly of pickups and deliveries. Trucks carry nearly all such local freight.

Intercity freight traffic is usually measured in ton-miles. A ton-mile represents 1 short ton (0.9 metric ton) transported 1 mile (1.6 kilometers). Rail shipments account for about 40 per cent of the ton-miles of freight hauled in the United States yearly. Shipments by truck account for about 25 per cent. Petroleum pipelines carry about 20 per cent. Barges and ships carry about 15 per cent, and airplanes less than one half of 1 per cent.

Freight transport in other developed countries is similar to that in the United States. However, railroads carry an even greater share of the intercity traffic in European countries than in the United States. Canal traffic is also greater in Europe.

In many cases, a particular freight shipment must be switched from one type of carrier to one or more other types to reach its destination. For example, many coal shipments travel by train, barge, and truck on their way to the buyer. The movement of freight by more than one method is called *international transport*.

A type of intermodal transport known as containerization has become increasingly common since the mid 1900's. Freight is packed into big crates called containers. The containers are designed to ride on truck trailers and railroad flatcars. They can easily be transferred between the two types of carriers and to specially designed container ships.

Containerization is used mainly to transport such goods as machinery and household appliances. The method reduces shipping costs, speeds deliveries, and cuts losses due to breakage. Some domestic freight is containerization. But containerization is used mainly in international trade.

International freight is transported mainly by ship. Many today's merchant ships are designed to carry containers or a particular kind of cargo, such as petroleum, grain, or iron ore. In numerous cases, the ships require specialized port facilities. Most large ports have been equipped to handle containers. Giant cranes and other lifting devices transfer the containers between container ships and truck trailers or railroad flatcars. Some of the world's busiest seaports specialize in handling oil tanker traffic. These ports have exceptionally deep harbors to accommodate giant tankers. They also have pumping systems and pipelines for loading and unloading the oil.

Some international freight moves by highway, rail, pipeline, inland waterway, or airplane. European countries, especially, depend on these methods in their trade with one another.

III. Which statement best expresses the main idea of the text? Why did you eliminate the other choices?

1. Freight transportation is used for transporting cargoes.
2. Freight transportation involves transportation of freight in an intermodal container or vehicles.
3. Freight transportation is used to reduce shipping costs, delivery time.

IV. Answer the following questions.

1. What is the cheapest way to move cargoes?
2. What is intercity freight traffic usually measured in?
3. What is intermodal transport?
4. What are the containers designed for?
5. What is containerization mainly used?
6. How is international freight implemented?

V. Locating information. Find the passage in the text where the following ideas are expressed. Give the line references.

1. Air transportation is the most expensive way to move freight.
2. The cargo is carried by airplanes, railroads and trucks.
3. Intercity freight traffic is measured in ton-mile.
4. Freight transport in developed countries is similar to that in the USA.
5. A type of intermodal transport known as containerization.
6. Containerization is used mainly in international trade.
7. Most large ports have been equipped to handle containers.
8. Some of the world's busiest seaports specialize in handling oil tanker traffic.
9. The containers are designed to ride on truck trailers and railroad flatcars.
10. European countries depend on these methods in their trade with one another.

VI. Understanding the passage. Decide whether the following statements are true or false (T/F) or there is no information by referring to the text. Then make the necessary changes so that the false statements become true.

- | | |
|--|----------|
| T | F |
| 1. Rail transportation doesn't cost about 3 times as much as water transportation. | |
| 2. Air transportation is costly, cargo planes usually carry only expensive, lightweight or perishable merchandise. | |
| 3. Most domestic freight traffic involves the transport of cargo between different countries. | |

terminals which handle the different cargoes, and are operated by different companies, also known as terminal operators or stevedores.

Water transportation is the intentional movement of water over large distances. Methods of transportation fall into three categories:

- aqueducts, which include pipelines, canals, and tunnels,
- container shipment, which includes transport by tank truck, tank car, and tank ship, and
- towing, where a tugboat is used to pull an iceberg or a large water bag along behind it.

Due to its weight, the transportation of water is very energy intensive. Unless it has the assistance of gravity, a canal or long-distance pipeline will need pumping stations at regular intervals. In this regard, the lower friction levels of the canal make it a more economical solution than the pipeline. Water transportation is also very common along rivers and oceans.

III. Which statement best expresses the main idea of the text? Why did you eliminate the other choices?

1. Ship transport is similar to other kinds of transport.
2. Ship transportation is one of the most important means of freight transportation.
3. Ship transport is the largest carrier of freight.

IV. Answer the following questions.

1. What is sea transport?
2. What revolutionized ship transport?
3. What is a port?
4. What are cargo ports used for?
5. What do you know about bulk ports?
6. What categories does water transport have? What are they?

V. Locating information. Find the passage in the text where the following ideas are expressed. Give the line references.

1. Sea transport has been the largest carrier of freight throughout recorded history.
2. Transport by water is cheaper than transport by air.
3. Shipping may be for commerce, recreation or the military.
4. Containerization revolutionized ship transport in the 1960s.
5. Port locations are selected to optimize access to land and navigable water.
6. Ports with deeper water are rarer.

Text 7

I. Study the following words.

1. general cargo – основной груз, груз общего назначения
2. pallet – паллет(ы) (стеллаж для транспортировки грузов)
3. stevedore – стивидор (портовый работник, выполняющий работы по погрузке и разгрузке судов; портовый грузчик)
4. aqueduct – акведук
5. tugboat – буксир

II. Read and translate the text.

SHIP TRANSPORTATION

Ship transport is watercraft carrying people (passengers) or goods (cargo). Sea transport has been the largest carrier of freight throughout recorded history. Although the importance of sea travel for passengers has decreased due to aviation, it is effective for short trips and pleasure cruises. Transport by water is cheaper than transport by air.

Ship transport can be over any distance by boat, ship, sailboat or barge, over oceans and lakes, through canals or along rivers. Shipping may be for commerce, recreation or the military. Virtually any material that can be moved, can be moved by water, however water transport becomes impractical when material delivery is highly time-critical. "General cargo" is goods packaged in boxes, cases, pallets, and barrels. Containerization revolutionized ship transport in the 1960s. When a cargo is carried in more than one mode, it is intermodal or co-modal.

A port is a location on a coast or shore containing one or more harbors where ships can dock and transfer people or cargo to or from land. Port locations are selected to optimize access to land and navigable water, for commercial demand, and for shelter from wind and waves. Ports with deeper water are rarer, but can handle larger, more economical ships. Since ports throughout history handled every kind of traffic, support and storage facilities vary widely, may extend for miles, and dominate the local economy. Some ports have an important, perhaps exclusively military role.

Cargo ports handle very different cargo, which has to be loaded and unloaded by very different mechanical means. The port may handle one particular type of cargo or it may handle numerous cargoes, such as grains, liquid fuels, liquid chemicals, wood, automobiles, etc. Such ports are known as the "bulk" or "break bulk ports". Those ports that handle containerized cargo are known as container ports. Most cargo ports handle all sorts of cargo, but some ports are very specific as to what cargo they handle. Additionally, the individual cargo ports are divided into different operating

4. Freight transport in developed countries is different from freight transport in the US.
5. Canal traffic is greater in Europe.
6. Freight isn't packed into big crates.
7. International freight is transported by autos.
8. The ships require specialized port facilities.
9. Seaports have exceptionally deep harbors to accommodate giant tankers.
10. European countries depend on highway, rail, pipeline, inland waterway in their trade.

VII. Insert the missing words.

1. Pipelines provide the cheapest means of transportation _____ and _____.
2. Trucks carry nearly all such _____.
3. _____ is by far the most _____ to move freight.
4. _____ carry about 20 percent.
5. Many coal shipments travel by _____, _____, and _____ on their way to the buyer.
6. _____ is containerized.
7. The containers are designed to ride on _____ and _____.
8. Seaports also have _____ and _____ for loading and unloading the oil.
9. _____ and other _____ transfer the containers between _____ and _____ or _____.
10. Freight is packed into _____ called _____.

VIII. Refer back to the text and find synonyms (i.e. words with a similar meaning) for the following words.

1. to carry
2. to design
3. to transfer
4. to switch
5. to reduce

Now refer back to the text and find antonyms (i.e. words with an opposite meaning) for the following words.

1. cheap
2. to be similar to
3. lightweight
4. easily
5. speed

IX. Translate the following sentences.

1. Внутренние перевозки включают в себя перевозки грузов между городами внутри одной страны.
2. Междугородный грузопоток обычно измеряется в тонно-милях.
3. Грузовые перевозки в развитых странах подобны перевозкам в США.
4. Перевозка угля осуществляется на поезде, барже и грузовике.
5. Контейнеризация – перевозка грузов в контейнерах, стала обычной с 1900 г.
6. Груз упаковывают в большие ящики называемые контейнерами.
7. Контейнеры, главным образом, используются для перевозки таких грузов как машинное оборудование и бытовые приборы.
8. Международные перевозки осуществляются, главным образом, морским транспортом.
9. Некоторые морские порты имеют исключительно глубокие гавани для размещения гигантских танкеров.
10. Морские порты также имеют системы накачки и трубопроводы для погрузки и разгрузки нефти.

X. Give an annotation to the text.

Text 6

I. Study the following words.

1. expressway – скоростная автострада
2. commuter service – пригородный пассажирский транспорт
3. mass transit – общественный транспорт
4. jet airlines – реактивный самолет
5. supersonic – сверхзвуковой

II. Read and translate the text.

PASSENGER TRANSPORTATION

There are two main types of passenger transportation: (1) private transportation and (2) public transportation. People who use private transportation operate their own vehicles. Those who use public transportation pay to ride on vehicles owned and operated by private companies or the government.

Private transportation in industrial countries is provided mainly by automobiles, bicycles, motorcycles, and private airplanes. Automobiles are by far the most important means of private transportation.

Most people in the United States travel chiefly by car. Americans use their cars largely for local transportation.

VIII. Refer back to the text and find synonyms (i.e. words with a similar meaning) for the following words.

1. a dweller
2. frequently
3. tremendous
4. modern
5. comfortable

Now refer back to the text and find antonyms (i.e. words with an opposite meaning) for the following words.

1. long
2. large
3. high-speed
4. increase
5. expensive

IX. Translate the sentences from Russian into English.

1. В промышленно развитых странах частные перевозки осуществляются в основном автомобилями, мотоциклами и частными самолетами.
2. Большинство людей в США путешествуют на автомобилях.
3. Страны с большим уличным движением имеют самые лучшие дорожные системы.
4. Передвижение по скоростным магистралям в развивающихся странах является менее важным, чем в развитых.
5. В наиболее крупных городах пришлось строить больше скоростных дорог для обслуживания все более возрастающего потока движения автомобильного транспорта.
6. Большинство крупных городов предоставляют общественный транспорт людям, не имеющим машин.
7. Общественный транспорт между городами и их окрестностями называется пригородным транспортом.
8. В Японии и во многих западноевропейских странах есть высокоскоростные пассажирские поезда.
9. Сегодня почти все путешествующие за границу летят самолетом.
10. Однако поездки на сверхзвуковых авиалайнерах являются дорогими, потому что эти самолеты потребляют огромное количество топлива.

X. Make a short summary of the text.

- Traveling by supersonic airliner is expensive because these planes consume large amounts of fuel.

VI. Understanding the passage. Decide whether the following statements are true or false (T/F) or there is no information by referring to the text. Then make the necessary changes so that the false statements become true.

T F

- People who use private transportation do not operate their own vehicles.
- Automobiles are by far the most important means of private transportation.
- Automobiles are also the leading means of travel between U.S. cities.
- Streetcars are not a type of light rail vehicle.
- Trains are the chief means of public transportation between big cities and their suburbs.
- Most big airports are on the outskirts of central cities.
- Japan and many Western European countries have high-speed passenger trains.
- The first transoceanic jet airliners began service during the 1980s, leading to a tremendous increase in overseas air travel.
- The voyage across the Pacific Ocean.
- In 1976, the first supersonic airliner, the Concorde, began service between Europe and the United States.

VII. Insert the missing words.

- Private transportation in _____ is provided mainly by automobiles, bicycles, motorcycles, and private airplanes.
- Intercity travel is usually measured in _____.
- Travel by _____ and travel by _____ account for less than 1 per cent each.
- But a growing number of city _____ in developing countries own a car.
- The airlines' share increases with _____.
- High-speed trains can compete with _____ for passengers on runs up to about 500 miles (800 kilometers).
- The first _____ appeared during the late 1940s.
- Almost all _____ go by plane.
- The Concorde travels between _____ and London or Paris – a distance of about 3,500 miles (5,630 kilometers)-in approximately _____ hours.
- The _____ began service during the 1950s, leading to a tremendous increase in overseas air travel.

But automobiles are also the leading means of travel between U.S. cities. Intercity travel is usually measured in passenger-miles. A passenger-mile represents one passenger transported 1 mile (1.6 kilometers). Automobile transportation accounts for about 80 per cent of all the intercity passenger-miles traveled in the United States each year. Travel by motorcycle and travel by private airplane account for less than 1 per cent each.

Automobiles are also the chief means of passenger transportation in Australia, Canada, Japan, New Zealand, and most of the nations of Western Europe. People in these countries and in the United States own about 77 per cent of the world's automobiles. Americans own by far the largest share-about 35 per cent of the world total. The countries with the most automobiles also have the best road systems. There are about 12 million miles (19 million kilometers) of roads throughout the world. About one-third of this mileage is in the United States. Most of the rest is in the other countries that have a large number of automobiles.

Highway travel is far less important in developing countries than in developed ones. But a growing number of city dwellers in developing countries own a car. The biggest cities have had to build more expressways to handle the ever-increasing flow of automobile traffic.

Public transportation. Any organized passenger service that is available to the general public can be classed as public transportation. There are three main types of public transportation service: (1) urban, (2) intercity, and (3) overseas.

Urban service. Most large urban areas provide some means of public transportation for people who do not own a car or who prefer to avoid city driving whenever possible. Public transportation in urban areas is called mass transit. Mass transit between cities and their suburbs is often called commuter service.

Buses are the chief mass transit vehicles. About 950 cities in the United States have a mass transit system. Almost all these systems provide bus service only. However, most of the world's big cities offer rail service in addition to bus service. About 90 cities throughout the world, including 10 U.S. and 2 Canadian cities have both subway and surface rail lines. Many big cities throughout the world also have elevated trains, which run on tracks above the streets. In addition, a growing number of large cities have a mass transit system that includes light rail vehicles.

A light rail vehicle is an electrically powered railway car that gets its power from an overhead trolley wire or an electrified third rail. Streetcars are a type of light rail vehicle. During the late 1800's and early 1900's, street-cars were the chief mass transit vehicles. Most streetcar tracks ran down the middle of the street, and increasing auto traffic began to interfere with the

operation of the streetcars. During the mid-1900's, streetcars were replaced by buses in nearly every American city where they operated.

Today's light rail vehicles can run underground, on elevated tracks, or on tracks built alongside city streets. Some of them are operated from computerized control centers instead of by drivers. The cars can travel individually, or they may be linked together to form a train. Many light rail vehicles have rubber-tired wheels, which help them run more smoothly and quietly than other trains.

Trains are the chief means of public transportation between big cities and their suburbs. About 75 per cent of all U.S. railroad passengers are commuters.

Intercity service is provided mainly by airplanes, buses, and trains. Riverboats and ferryboats carry an extremely small share of intercity passengers.

Commercial air, bus, and rail transportation accounts for about 20 per cent of the intercity passenger-miles traveled in the United States each year. Airlines handle the biggest share of this traffic, and railroads the smallest. The airlines' share increases with the length of the trip. In the case of especially long trips, nearly as many Americans travel by air as by automobile. Rail and bus travel are more important in other countries than in the United States. They are the chief modern means of intercity travel in most developing nations. Japan and many Western European countries have high-speed passenger trains.

High-speed trains can compete with airliners for passengers on runs up to about 500 miles (800 kilometers). Most big airports are on the outskirts of central cities. For short- and medium-length flights, the trip to and from the airport may take longer than the flight itself. Trains, on the other hand, take passengers all the way into central cities. Passengers on a high-speed train may thus complete their entire journey in less time than it would take by air.

Overseas service. The first overseas airlines began operations during the 1930s. But the planes had to stop frequently during a flight for refueling. Most overseas travelers continued to go by ship until the late 1950s, even though it took far longer to sail than to fly. The voyage across the Atlantic Ocean, for example, took four days or more. The first nonstop transoceanic airliners appeared during the late 1940s. These propeller-driven planes could carry passengers across the Atlantic safely and comfortably in hours rather than days. As these planes became more common, overseas travel increased. The first transoceanic jet airliners began service during the 1950s, leading to a tremendous increase in overseas air travel.

Today, almost all overseas travelers go by plane. Only one ocean liner, Britain's Queen Elizabeth 2, still makes transatlantic voyages. Most ocean

liners today operate as cruise ships. They specialize in taking vacationists to the Caribbean, the Mediterranean, and other warm areas.

In 1976, the first supersonic airliner, the Concorde, began service between Europe and the United States. The Concorde travels between New York City and London or Paris—a distance of about 3,500 miles (5,630 kilometers)—in approximately $3\frac{1}{2}$ to 4 hours. However, traveling by supersonic airliner is expensive because these planes consume large amounts of fuel.

III. Which statement best expresses the main idea of the text? Why did you eliminate the other choices?

1. Passenger transportation is important as well as other means of transportation.
2. Private transportation is more important than public transportation.
3. The various means of moving people are used for both private transportation and public transportation.

IV. Answer the following questions.

1. What is private transportation provided by?
2. What is intercity travel measured in?
3. What are 3 types of public transportation service?
4. How do people use public transportation in urban areas?
5. When did the first overseas airlines begin their first operations?
6. How are ships used in overseas service?

V. Locating information. Find the passage in the text where the following ideas are expressed. Give the line references.

1. Automobiles are by far the most important means of private transportation.
2. A passenger-mile represents one passenger transported 1 mile (1.6 kilometers).
3. Travel by motorcycle and travel by private airplane account for less than 1 per cent each.
4. Americans own by far the largest share — about 35 per cent of the world total automobiles.
5. Most of the rest is in the other countries that have a large number of automobiles.
6. Riverboats and ferryboats carry an extremely small share of intercity passengers.
7. Rail and bus travel are more important in other countries than in the United States.
8. The first nonstop transoceanic airliners appeared during the late 1940s.
9. Most ocean liners today operate as cruise ships.