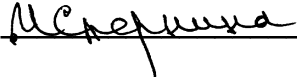


МИНОБРНАУКИ РОССИИ
ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ
ВЫСШЕГО ПРОФЕССИОНАЛЬНОГО ОБРАЗОВАНИЯ
«ВОРОНЕЖСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ»
(ФГБОУ ВПО «ВГУ»)

УТВЕРЖДАЮ
Заведующий кафедрой английского
языка естественно-научных
факультетов

 М.А.Стернина
24.06.2018 г.

**ФОНД ОЦЕНОЧНЫХ СРЕДСТВ
ПРОГРАММЫ ПОДГОТОВКИ СПЕЦИАЛИСТОВ СРЕДНЕГО ЗВЕНА**

ОГСЭ.03 Иностраннный язык (английский язык)

Код и наименование дисциплины в соответствии с Учебным планом

31.02.04 Медицинская оптика

Код и наименование специальности

технический

Профиль подготовки (технический, естественнонаучный, социально-экономический, гуманитарный)

Оптик-оптометрист

Квалификация выпускника

очная

Форма обучения

Учебный год: 2018-2019

Семестр(-ы): 1,2,3,4,5,6,7,8

Рекомендован: НМС факультета РГФ, протокол №10 от 19.06.2018

Составители ФОС: Федосова В.И. преподаватель кафедры английского языка
естественно-научных факультетов

(ФИО, должность, ученая степень и (или) ученое звание)

ПАСПОРТ ФОНДА ОЦЕНОЧНЫХ СРЕДСТВ дисциплины ОГСЭ.03 Иностранный язык (английский язык)

Фонд оценочных средств разработан на основе Федерального государственного образовательного стандарта среднего профессионального образования (ФГОС СПО) по специальности 31.02.04 Медицинская оптика, утвержденного приказом Министерства образования и науки Российской Федерации от 11 августа 2014 г., N971 "Об утверждении федерального государственного образовательного стандарта среднего профессионального образования по специальности 31.02.04 Медицинская оптика и в соответствии с рабочей программой учебной дисциплины ОГСЭ.03 Иностранный язык (английский язык).

ФОС включает контрольные материалы для проведения текущего контроля и промежуточной аттестации в форме экзамена.

ФОС разработан на основании положений:

- Устав ФГБОУ ВО «ВГУ»;
- Федеральный государственный образовательный стандарт среднего(полного) общего образования, утвержденный приказом Министерства образования и науки Российской Федерации от 5 августа 2013 г. №661;
- Федеральный государственный образовательный стандарт (ФГОС) по специальности 31.02.04 Медицинская оптика, утвержденного приказом Министерства образования и науки Российской Федерации от 11 августа 2014 г., N971 "Об утверждении федерального государственного образовательного стандарта среднего профессионального образования по специальности 31.02.04 Медицинская оптика;
- Приказ Министерства образования и науки Российской Федерации от 14 июня 2013 г. №464 г. Москва «Об утверждении порядка организации и осуществления образовательной деятельности по образовательным программам среднего профессионального образования»;
- примерные программы профессиональных модулей (носят рекомендательный характер) и учебных дисциплин;
- П ВГУ 2.2.01 – 2015 Положение о порядке организации и осуществления образовательной деятельности, текущей, промежуточной и итоговой аттестации по основным профессиональным образовательным программам среднего профессионального образования в Воронежском государственном университете, утверждено решением Ученого совета ФГБОУ ВО «ВГУ протокол от 22.12.2015 №11.

1. Цели и задачи учебной дисциплины – требования к результатам освоения:

В результате освоения учебной дисциплины обучающийся должен:

1.1. Знать: основные грамматические формы и конструкции (видо-временную систему времен английского глагола, синтаксические типы предложения, наклонения, модальность, залог, знаменательные и служебные части речи); лексику в рамках обозначенной тематики и проблематики общения в объеме 1200 - 1500 лексических единиц.

1.2. Уметь:

- в области аудирования:

воспринимать на слух и понимать основное содержание несложных аутентичных, публицистических и прагматических текстов, относящихся к различным типам

речи (сообщение, рассказ), а также выделять в них значимую/запрашиваемую информацию;

- в области чтения:

понимать основное содержание несложных аутентичных, публицистических и прагматических текстов, научно-популярных и научных текстов, блогов/веб-сайтов; детально выделять значимую/запрашиваемую информацию из прагматических текстов справочно-информационного и рекламного характера;

- в области говорения:

начинать, вести/поддерживать и заканчивать диалог-расспрос об увиденном, прочитанном, диалог-обмен мнениями и диалог-интервью/собеседование при приеме на работу, соблюдая нормы речевого этикета, при необходимости используя стратегии восстановления сбоя в процессе коммуникации (переспрос, перефразирование и др.); расспрашивать собеседника, задавать вопросы и отвечать на них, высказывать свое мнение, просьбу, отвечать на предложение собеседника (принятие предложения или отказ); делать сообщения и выстраивать монолог-описание, монолог-повествование и монолог-рассуждение;

- в области письма:

заполнять формуляры и бланки прагматического характера; поддерживать контакты при помощи электронной почты (писать электронные письма личного характера); оформлять Curriculum Vitae/Resume и сопроводительное письмо, необходимые при приеме на работу, выполнять письменное оформление презентаций, информационных буклетов, рекламных листовок, коллажей, постеров, стенных газет и т.д.).

1.3. Владеть:

языковыми и речевыми умениями и навыками, необходимыми в бытовой, социально-культурной, учебно-познавательной и профессиональной сферах общения.

Результатом освоения программы учебной дисциплины является овладение обучающимся профессиональными (ПК) и общими (ОК) компетенциями:

Код компетенции	Содержательная часть компетенции
ПК 2.1	Проводить консультации по вопросам режима зрения для населения.
ПК 2.2	Оказывать консультативную помощь пациенту при подборе и реализации средств коррекции зрения с точки зрения технических, технологических и медицинских аспектов.
ПК 3.1	Проводить консультации по вопросам современной оптической моды, формирования и коррекции визуального имиджа с помощью корректирующих и солнцезащитных очков.
ПК 3.2	Участвовать в маркетинговой деятельности организации.
ПК 3.3	Урегулировать и разрешать конфликтные ситуации в профессиональной деятельности.
ОК 1.	Понимать сущность и социальную значимость своей будущей профессии, проявлять к ней устойчивый интерес.
ОК 2.	Организовывать собственную деятельность, определять методы и способы выполнения профессиональных задач, оценивать их

	эффективность и качество.
ОК 3.	Решать проблемы, оценивать риски и принимать решения в нестандартных ситуациях
ОК 4.	Осуществлять поиск, анализ и оценку информации, необходимой для постановки и решения профессиональных задач, профессионального и личностного развития.
ОК 5.	Использовать информационно-коммуникационные технологии для совершенствования профессиональной деятельности.
ОК 6.	Работать в коллективе и команде, обеспечивать ее сплочение, эффективно общаться с коллегами, руководством, потребителями.
ОК 7.	Ставить цели, мотивировать деятельность подчиненных, организовывать и контролировать их работу с принятием на себя ответственности за результат выполнения заданий.
ОК 8.	Самостоятельно определять задачи профессионального и личностного развития, заниматься самообразованием, осознанно планировать повышение квалификации.
ОК 9.	Быть готовым к смене технологий в профессиональной деятельности.

2. Условия аттестации: промежуточная аттестация проводится в форме экзамена путем подготовки презентаций при положительных результатах текущего контроля. Текущая аттестация проводится в форме выполнения комплекта тестов по каждому из разделов дисциплины.

Время аттестации:

подготовка _____ 10 _____ мин.;
 выполнение _____ 1 _____ час _____ 15 _____ мин.;
 оформление и сдача _____ 10 _____ мин.;
 всего _____ 1 _____ час _____ 35 _____ мин.

2. Программа оценивания контролируемой компетенции:

Текущая аттестация	Контролируемые модули, разделы (темы) дисциплины и их наименование	Код контролируемой компетенции (или ее части)	Наименование оценочного средства
№1	Leisure Time; Food; Shopping; Homes, Family Matters	ОК-1, ОК-4, ОК- 5,ОК-6	Комплект тестов по бытовой сфере общения
№2	Rural & Urban Living, Wild Life, Arts; The Age of Technology; Around The World; Sports; Global Affairs; Languages and Communication	ОК-1, ОК-2, ОК-3,ОК-4, ОК-5, ОК-6, ОК-7	Комплект тестов по социально-культурной сфере общения
№3	Pharmacy Education in Russia and abroad; My University, Pharmacy Faculty; Health Care; History of Medicine; Physiology; Anatomy; Pharmacy; Pharmacology; Microbiology; Bacteria and Viruses; History of Pharmacy; Pharmacy in the Modern World; Pharmacognosy; Pharmaceutical Training; Healthy Way of Life	ОК-1б ОК-2, ОК-3,ОК-4, ОК-5, ОК-6,ОК-7б ОК-8,ОК-9 ПК-2.2, ПК-2.2, ПК-3.1-3.3	Тест по профессиональной сфере общения Тест по подготовке презентаций
Промежуточная аттестация -экзамен		ОК-1 – ОК-9	Подготовка презентации (протокол оценивания презентаций)

МИНОБРНАУКИ РОССИИ
ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ
ВЫСШЕГО ОБРАЗОВАНИЯ
«ВОРОНЕЖСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ»
(ФГБОУ ВО «ВГУ»)

Кафедра английского языка естественно-научных факультетов

Комплект оценочных средств к текущим аттестациям

Текущая аттестация проводится в форме тестовых заданий по сферам общения. Тестовые задания по сферам общения для текущих аттестаций включают задания на чтение, лексику и грамматику.

Примеры заданий по разделу «Бытовая сфера общения»

**ТЕСТОВЫЕ ЗАДАНИЯ ДЛЯ ТЕКУЩЕЙ АТТЕСТАЦИИ
ПО РАЗДЕЛАМ “LEISURE TIME”, “FOOD”, “LIVE TO SHOP OR SHOP TO
LIVE” БЫТОВОЙ СФЕРЫ ОБЩЕНИЯ**
для студентов 1 курса естественнонаучных факультетов

1. Put the words in the correct order.

Example: *a bargain / really / going / I / enjoy / markets / the shops / looking / and / for / round. – I really enjoy going round the shops and markets looking for a bargain.*

1. common / gardening / house / have / is / a very / hobby / for / their / who / people / own.
2. day / should / you / a couple / eat / per / of / vegetables.
3. life / and / would / our / without / rest / difficult / be / recreation.
4. on / spend / you / money / clothes / a lot of / music / and.
5. free / have / to / different / people / how / their / of / ideas / time / spend.
6. the / be / right / eat / and / can / food / healthier / you.
7. a day / playing / 2-3 hours / spend / I / chess.
8. Traditional / Italy / lasagna / is / a dish / of.
9. hobby / collecting / is / a / popular / things / very.
10. people / nowadays / the / things / on / buy / Internet / can.

2. Here are the answers to the questions. Write the questions. Use the words in brackets.

Example: *There farmers can sell their products directly to the customer. (market) – What is a farmers' market?*

1. My friends and I like going to the cinema and do it every weekend. (often)
2. Ice-cream tastes very sweet, it is smooth, creamy and very cold. (taste like)
3. A nice cup of green tea with some biscuits is the best way to start a new day. (for breakfast)
4. I don't spend a lot of time in the shops and I choose things very fast. (clothes shops)
5. I always look for the lowest price. (different shops)
6. I like to see what's new, and there's a really good atmosphere there. (mall)
7. You can play games in the arcade at the mall. (coin-operated machines)
8. Yes, I always check prices in different shops. (careful)

9. Well, I get the weekly groceries. (regularly)
10. Farmers sell their products directly to the customers and provide them with “real” food. (profits)

3. Complete the dialogue with the words or phrases:

your opinion work look after choice with have to need to
 wrong food and stuff ~~the public~~ missing out

Example:

A: Today we're talking about the role of the mother in the family. Let's see what the public think.

B: I think mothers should stay at home. I 1) _____ my kids, they need my love and I know what they like.

A: I understand 2) _____, but sometimes mothers have no 3) _____. They 4) _____ work. It's better for the family to have money to buy 5) _____.

B: Well, that's a good point, but I think some mothers 6) _____ because they want to, not because they 7) _____. They prefer to work rather than look after their children, and I think that's 8) _____.

A: I agree 9) _____ you. I know a lot of mothers who work just because they like to have a job. And that's a real pity, because they're 10) _____ on the best time in their children's lives. You can work anytime, but they are only young once.

4. Read the text and say whether the statements are true or false.

The best shopping cities

Which are the best cities to shop in? Writer, Ellie Clare, has been to five cities around the world to find out. This week, she writes about Paris.

I went to Paris in June. It's a lovely city for sightseeing at that time of year, but it's also a great place to find high-quality fashion. I started in the boutiques and visited all the top names, including Cartier, Chanel, Christian Dior and Yves Saint Laurent. I've never seen such beautiful things, but they are, of course, expensive. I bought some perfume and moved on to the huge department stores of Paris. Two of the most famous are Printemps and Galeries Lafayette and they are definitely good places to visit. One place I found disappointed was The Champs-Élysées. In old days, it was a great place for fashion, but now there are too many fast-food restaurants, banks, airline offices, shopping centers and cinemas aimed at tourists. Don't waste your time there!

After the shops, I tried the markets. One of the most famous places to find treasures in Paris is the flea market. There are three main flea markets and they are situated around the old gates of the city. I spent hours walking around these fascinating places and while I was there, I discovered the meaning of the name flea market. Hundreds of years ago, the royal family gave away their old clothes, but they were full of little insects- fleas, of course!

One stallholder told me that the best time to find treasures at the market is before the crowds arrive, usually between 5 a. m. and 6 a. m. But that was a bit early for me. I was enjoying Paris nightlife too much! There are also open-air markets all around the city where you can buy flowers, clothes, pets, food and many other things. And if you want to buy a book, visit the rows of bookstalls along the River Seine. You can find some great bargains there, or you can spend hours just looking.

If you want to buy half of Paris or if you just want to walk around and look, you'll love the experience. Paris is a great place to shop!

1. Ellie went sightseeing.
2. She bought one item from a boutique.
3. She didn't visit any of the department stores in the city.

4. She mentions two department stores.
5. She thinks The Champs-Élysées has improved.
6. You can have a meal on The Champs-Élysées.
7. Ellie spent most of her time at the flea markets.
8. A long time ago, kings and queens sold their old clothes in flea markets.
9. Ellie visited the flea markets between 5 a.m. and 6 a. m.
10. The bookstalls by the river are very expensive.

5. Write about your hobby.

Примеры заданий по разделу «Социально - культурная сфера общения»

**ТЕСТОВЫЕ ЗАДАНИЯ ДЛЯ ТЕКУЩЕЙ АТТЕСТАЦИИ
ПО РАЗДЕЛАМ “RURAL AND URBAN LIVING”, “WILDLIFE”, “ARTS”
для студентов 1 курса естественнонаучных факультетов**

1. Put the words in the correct order.

Example: *Front / home/ of / he/ read / in / good / with / evening / a / relaxes/ the/ at/ book/ in / fire / to / the. – In the evening he relaxes at home in front of the fire with a good book to read.*

1. Famous are Brazil clubs in football there two.
2. Media and provide the mass other Internet information the access world’s to.
3. More need benefits of countryside the available in city to be life the.
4. Animals are many of danger in rare extinction.
5. Few there humans that worse are invaders than are.
6. Brilliantly comes the streets effect that visual from produces the Pissarro wet.
7. Some lots horrible I who of know people and paintings on expensive which spend are money look really.
8. 18th towns the places in employment in mass factories of became and offices century the.
9. Thousands that invaders are animals like there insects are small of.
10. Impressionist was held Paris eight the were place exhibitions where.

2. Here are the answers to the questions. Write the questions. Use the words in brackets.

Example: *No, I think, snakes are more dangerous than spiders. (as.....as) – Are spiders as dangerous as snakes?*

1. Yes, there are two stadiums in my city. (any)
2. It’s hot in summer and cold in winter. (weather, your region)
3. Certainly. Go straight ahead and you’ll see it just on the left of the library. (way, post-office)
4. I prefer travelling abroad. (spend, holidays)
5. Yes, there are about 12 million people in Moscow. (population)
6. I like impressionists. (prefer, style)
7. From 10 in the morning till 7 in the evening. (museum, open)
8. Small animal invaders destroy plants and damage farmers’ crops. (cause harm, environment and economy)
9. These animals are kept in zoos all over the world. (where, animals in captivity)
10. Pissarro met such world-famous impressionists as Monet and Cezanne. (painters, in Paris)

3. Complete the dialogue with the words and expressions below. The first one is done for you as an example.

a long walk	<u>far from</u>	down	opposite	the way	not at all the
first turning	cross	to take	enjoy	certainly	

Tourist 1: According to the map, the museum isn't very 1 far from here.

Tourist 2: Let me have a look. Well, it's most definitely somewhere 2 _____ this road, but it must be 3 _____.

Tourist 1: Excuse me officer, can you tell us 4 _____ to the Museum of Modern Art?

Policeman: 5 _____. Walk down this road to the third traffic light, then 6 _____ the road, turn right, walk a bit, and take 7 _____ on the left and you'll see the museum. It's 8 _____ the City Bank, you can't miss it.

Tourist 2: Thank you very much. I've written it all down. Is it a very long walk? Wouldn't it be a better idea 9 _____ the bus?

Policeman: Well, I don't think so. It isn't very far, and you'll 10 _____ the walk.

Tourist 1: Thanks again.

Policeman: 11 _____.

4. Read the text and say whether the statements are true or false.

Example: *When killer whales are fully-grown they leave the group and travel alone.* – F

Killer Whales

These animals are absolutely beautiful. They have a very distinctive black and white colouration. Over 600 killer whales live along British Columbia's coastline. They make up some of the most complex communities we have seen in mammals. They always travel in groups called pods. There are between five and thirty animals in each pod. The whales live and travel with their mothers even after they are fully-grown, forming strongly matriarchal whale societies. Over its lifetime, the group will never separate and a female will always act as the leader of the group. Killer whales are very successful hunters due to their cooperative hunting, where all animals within the pod participate.

Female killer whales usually give birth every three to ten years. Killer whales have no natural predators (they are the top predators of the oceans) and can live for about fifty to eighty years. They are not considered endangered.

1. Killer whales have variegated colouration.
2. There are up to thirty animals in one pod.
3. Not all animals in the pod are hunters.
4. Female killer whales give birth only once in a lifetime.
5. The whales even fully-grown are very adhered to their mothers.
6. These animals are considered to be the top predators of the oceans.
7. Killer whales belong to endangered species.
8. A female killer whale is the leader of the group.
9. Killer whales can live over fifty years.
10. These animals don't have strong social instincts.

5. Write a letter (120-150 words) to tell your penfriend about the cultural event you have attended lately (concert, exhibition, theatre, dance performance etc.).

Include the following:

- who you went with
- what event you went to
- why you chose this event
- what you liked about it
- what you didn't like about it.

T E S T

Тест по профессиональной сфере общения.

Use of English

1. Put the verbs in brackets into the present simple passive to describe how engines work.

Mechanical energy 1)(obtain) when heat 2) (allow) to flow from a high temperature to a low temperature. In the process some of the heat 3) (transform) to mechanical work. That is, a heat input Q_H at a high temperature T_H 4) partly (transform) into work W and partly exhausted as heat at a lower temperature. The high and low temperatures 5) (call) operating temperatures. In a steam engine, the high temperature 6) (obtain) by burning coal, oil, or other fuel to heat the system. Most of our electricity today 7) (generate) using steam turbines. The internal combustion engine 8) (use) in most automobiles. The high temperature in engines of this kind 9) (achieve) by burning gasoline-air mixture in the cylinder itself. The mixture 10)(ignite) by the spark plug.

2.Fill in the correct word derived from the words in brackets.

All natural processes move toward a state of greater (order).

High- and low-temperature regions of a heat engine could be used to obtain work. (use)

In thermodynamics we are not concerned with the components of an engine but, rather, its general (operate)

No heat engine operating in a cycle can convert heat energy into work. (complete)

It is to obtain a temperature of absolute zero. (possible)

The third law has never been violated (experiment)

..... is the transfer of heat by molecular activity. (conduct)

It becomes more difficult to lower the temperature of a material when it gets closer to absolute zero. The increases with every step. (difficult)

The kinetic energy of molecules is transferred from one molecule to another through (collide)

Solids are generally the best thermal conductors.

Reading

Read the text and choose from the list A-F the sentence which best fits each gap in the text. There is one extra sentence which you do not need to use.

Entropy and the Second law of Thermodynamics

We have seen several aspects of the second law of thermodynamics. But what we would really like is a general statement of this law. It was not until the latter half of the nineteenth century that the second law of thermodynamics was finally stated in a general way, namely in terms of a quantity called entropy, introduced by Clausius in the 1860s. Entropy, unlike heat is a function of the state of the system. (1/.....)

The concept of entropy as we have discussed far, may seem rather abstract. To get a feel of the concept of entropy, we can relate it to the concepts of order and disorder. (2/.....) Then the second law of thermodynamics can be stated simply as: natural processes tend to move toward a state of greater disorder.

Exactly what we mean by disorder may not always be clear, so we now consider a few examples. Some of these will show us how this very general statement of the second law actually applies beyond what we usually consider as thermodynamics. Shaking a jar containing separate layers of salt and pepper results in a mixture, and no amount of shaking brings the orderly layers back again.

(3/.....) That is, disorder increases. When a hot object is put into contact with a cold object, heat flows from a high temperature to the low until the two objects reach the same intermediate temperature. (4/.....) After the process all the molecules are in one class with the same average kinetic energy, and we no longer have the more orderly arrangement of molecules in two classes. Order has gone to disorder.

Furthermore, note, that the separate hot and cold objects could serve as the hot- and cold-temperature regions of a heat engine, and thus be used to obtain useful work. But once the two objects are put in contact and reach the same temperature, no work can be obtained. (5/.....) These examples illustrate the general concept that an increase in entropy corresponds to an increase in disorder.

At the beginning of the process we can distinguish two classes of molecules: those with a high average kinetic energy and those with a low average kinetic energy.

The natural process is from a state of relative order (layers) to one of relative disorder (a mixture), not the reverse.

When heat is added to an object, its entropy increases because the added energy increases the disordered motion of the molecules.

Disorder has increased, since a system is no longer able to do work.

In fact, the entropy of a system can be considered a measure of the disorder of the system.

According to Clausius, the change in entropy S of a system, when an amount of heat Q is added to it by a reversible process at constant temperature is given by .

Find out if the following sentences are true or false.

The second law of thermodynamics was finally stated at the beginning of the nineteenth century. T/F

If we want to get a better idea of the concept of entropy, we should relate it to the concepts of order and disorder. F/T

The entropy of a system can be considered a measure of the disorder of a system.

Natural processes tend to move toward a state of increasing order. F/T

The natural process is from a state of relative order (layers) to one of relative disorder (a mixture) not the reverse. F/T

When the two objects (the hot object and the cold one) reach the same intermediate temperature, all the molecules are in one class with the same average kinetic energy and we get the more orderly arrangement of molecules in one class. F/T

Writing

1. Read the text. Complete the statements that follow the text trying to summarize its ideas.

The second law of thermodynamics

In terms of entropy the second law of thermodynamics can be stated as: The entropy of an isolated system never decreases.

Processes that are left to themselves tend to become more and more disordered, never the reverse. A student's dormitory room naturally becomes disordered, never the reverse. Of course, the room can be cleaned and items put in order, and the entropy of the room decreases. But to put things back in order, someone must expend energy, with a greater entropy increase than the room's entropy decrease. We sometimes say that the total entropy of the universe increases in every natural process.

Here's another long-term implication of the second law of thermodynamics: heat naturally flows from a region of higher temperature to one of lower temperature. In terms of order, heat energy is more "orderly" when it is concentrated. When transferred naturally to a region of lower temperature, it is "spread out" or becomes more "disorderly", and the entropy increases. Hence the universe – the stars and galaxies – should eventually cool down to a final common temperature when the entropy of the universe has reached a maximum. The possible fate of the universe, billions of years from now, is sometimes referred to as its "heat death".

1. The purpose of this text is to focus on
2. Entropy is understood here as
3. It is stated that processes that are left to themselves
4. To give a better understanding of this phenomenon an example from the life of a student's residence is given. It describes a situation
5. Finally, the text touches upon long-term implications of the second law of thermodynamics. They deal with the transfer of heat
6. On the global scale such processes will eventually lead to

Ask questions to the parts in bold.

Processes that are left to themselves tend to become more and more disordered.

The room can be cleaned.

The entropy of the room decreases.

We sometimes say that the total entropy of the universe increases in every natural process.

Heat naturally flows from a region of higher temperature to one of lower temperature.

In terms of order, heat energy is more "orderly" when it is concentrated.

Keys:

Use of English

Ex.1 1) is obtained, 2) is allowed, 3) is transformed, 4) is partly transformed, 5) are called, 6) is obtained, 7) is generated, 8) is used, 9) is achieved, 10) is ignited

Ex.2 1) disorder, 2) useful, 3) operation, 4) completely, 5) impossible, 6) experimentally, 7) conduction, 8) difficulty, 9) collision, 10) conductors

Reading

Ex.1 1) – F, 2) – E, 3) – B, 4) –A, 5) –D

Ex.2 1) – F, 2) – T, 3) – T, 4) –F, 5) – T, 6) – F

Writing

Ex.1

The purpose of this text is to focus on the second law of thermodynamics in terms of entropy.

Entropy is understood here as a measure of the disorder of a system.

It is stated that processes that are left to themselves become more and more disordered.

To give a better understanding of this phenomenon an example from the life of a student's residence is given. It describes a situation with a student's dormitory which

naturally becomes disordered, never the reverse. As a result of an effort to put things back in order the entropy of the room decreases, although the energy expended in the process involves a greater entropy increase than the room's entropy decrease. Finally, the text touches upon long-term implications of the second law of thermodynamics. They deal with the transfer of heat from a region of higher temperature to one of lower temperature which also results in the increase of entropy. On the global scale such processes will eventually lead to cooling down of the universe – the stars and galaxies – to a final common temperature when the entropy of the universe has reached a maximum.

Ex.2

What processes tend to become more and more disordered?

What can be cleaned?

Does the entropy of the room decrease?

What do we sometimes say?

What does heat naturally do?

When is heat energy more “orderly” un terms of order?

Тест по подготовке к презентации

I. Fill in the gaps with the linkers from the box.

A. As a final point I'd like to take a look at ... B. While ... C. Hence ... D. First ... E. As I mentioned earlier ... F. Then ... G. Because of the fact ... H. I'll start off by ... I. Well, that brings me to the end of my presentation ... J. Actually ... K. On the other hand ... L. Finally ... M. To begin with ... N. Let's now move on to the next issue ... O. So much for my first point.

The topic of my presentation is “Black Holes”. My talk is of particular interest to those of us who are interested in astrophysics. The purpose of my talk is to bring you up to date with the latest views on this phenomenon. In my presentation I'll focus on three major issues. 1) _____, I'll give you the definition of the black hole, 2) _____ I'll move on to the description of some basic features of this phenomenon, 3) _____, I'll talk about the hypothesis dealing with the possibility of a threat that a black hole might present to the Solar System.

4) _____ by giving you an idea of what a black hole is. 5) _____, it is a region of space in which the gravitational field is so powerful that nothing can escape after having fallen past the event horizon. 6) _____ the idea of such an object was put forward by the geologist John Michel in the 18th century. Black holes as presently understood are described by Einstein's theory of relativity. General relativity describes a black hole as a region of empty space with a pointlike singularity at the centre. It is a place where a black hole's mass is entirely compressed into zero volume, which means its density and gravitational pull are infinite. However, quantum mechanics does not allow objects to have zero size. It says the center of a black hole is not a singularity but just a very large mass compressed into a very large volume.

7) _____.

8) _____ which is concerned with some major features of the black hole. 9) _____ black holes can have any mass. They can be divided

into several size categories: a) supermassive black holes. They contain millions to billions of times the mass of the sun. They are believed to exist in the center of most galaxies; b) intermediate-mass black holes, whose size is measured in thousands of solar masses; c) stellar-mass black holes have masses ranging from about 1.5-3.0 solar

masses to 15 solar masses. These black holes are created by the collapse of individual stars; d) micro black holes. 10)_____ all black holes have the event horizon. This is the boundary of the region from which not even light can escape. The event horizon is not a solid surface. It does not obstruct or slow down matter or radiation which is traveling toward the region. From the viewpoint of a distant observer any object falling into a black hole experiences a slowing down of time before it crosses the event horizon. It is called gravitational time dilation.

11)_____ the issue of the danger that black holes might present to us.

12)_____ that black holes of different sizes have been discovered in our galaxy, some researches list them among the most serious potential threats to humanity. 13)_____, the majority of specialists working in this field disagree on this point. They think that although stellar-mass black holes can travel through the Milky Way just like stars and consequently collide with the Solar System, the possibility of this happening is very small. Significant gravitational interactions between the Sun and any other star (including a black hole) are expected to occur approximately once every 10¹⁹ years. 14)_____ it is extremely unlikely that a black hole will pass through the Solar System before the Sun exterminates life on Earth. 15)_____ .

II. Put the text of the presentation into logical order:

Let's now turn to high temperature. When a material becomes very hot, its particles have lots of thermal energy. Solids melt and liquids vaporize because their thermal energy exceeds the forces that bind atoms and molecules together. At even higher temperature, atoms dissociate into electrons and ion plasma, yet another state of matter. So, is there a high temperature analog to absolute zero? In the sense that there is a limit to the total energy that exists in the universe, there is a highest possible temperature. Cosmologists postulate that a tiny possible fraction of an instant after the Big Bang the temperature of the newborn universe was 10³²K. Even the center of today's Sun at 15,000,000C is frigid by comparison. Well, that covers just about everything I wanted to say about the properties of matter at highest and lowest readings.

First, let me give you a clear idea of what temperature is. Actually, it is a measure of the average kinetic energy of the molecules of a substance. The greater the temperature of a substance, the greater the motion of its molecules. With the increase of temperature the motion of the molecules becomes more disordered. Consequently, the temperature is also a measure of the degree of 'disorder' or 'messiness' of a system. Furthermore, when the system is cooled down to absolute zero, then that system becomes perfectly ordered. In other words, all its constituents =molecules and atoms- are in their proper place. That is the lowest possible temperature, absolute zero. This brings me to the end of my first point. OK, so that's the definition of temperature.

Hi, everyone. It's good to see you all here. For those of you who don't know me, my name is XX .I'm a second-year student of the physics department at VSU. The subject of my presentation is ' temperature'. My talk is of particular interest to those of you who are studying temperature related problems. My aim is to give you some relevant information on upper and lower limits of temperature.

As a final point I'd like to highlight one key issue. It deals with the problem concerning our ability to get the highest and lowest temperatures. As you already know, the highest possible energy is the total energy of the universe. I think it is clear that we can never harness it, so the highest possible temperature is not attainable. Neither can we experience the other end of the scale. We can get very close, but never to absolute

zero. To bring something to perfect order, you have to get rid of disorder. However, as the system gets closer to absolute zero, it becomes harder and harder to remove that disorder. I think that's everything I wanted to say about temperature. And now I'll be happy to answer any questions you may have.

Now let's move on to the next point and take a closer look at the properties of matter at low and high temperatures. Before we start I want you to note that at sufficiently low temperatures quantum mechanic effects dominate the properties of all matter. In some material the effect is truly spectacular. For instance, some types of matter become superconducting, carrying electric current with absolutely no resistance. Another vivid example of quantum effects can be found in liquid helium when it becomes a superfluid and can flow without friction. Moreover, at very low temperatures particles such as atoms will bunch together. This collection of particles acts like a single giant atom. This state of matter is known as Bose-Einstein condensate. So much for the properties of matter at very low temperature.

I've divided my presentation into three parts. I'll start off by giving you the definition which might help you understand the meaning of temperature. Then I'll move on to the properties of matter at very low and high temperatures. I'll end with the conclusion on attainability of the highest or lowest possible temperatures. It will take about 3 minutes to cover these issues. There will be time for questions after my presentation.

III. Ask questions to which the following statements may be the answers:

1. It (the motion of molecules) becomes more disordered.

2. When it (the system)is cooled down to absolute zero.

3. Under very low temperatures some types of matter become superconducting.

4. Because their thermal energy exceeds the forces that bind atoms and molecules together.

5. Yes, I suppose there is. Because there is a limit to the total energy that exists in the universe.

6.The temperature of the newborn universe was 1032 K.

Keys:

Ex.I.

1.– D/M, 2.– F, 3.– L, 4.– H, 5.- J/K, 6.– B, 7.– O, 8.– N, 9.– M/D, 10.– E, 11.– A, 12. – A, 13. – K/J, 14. – C, 15. – I

Ex.II.

5. 3. 1. 6. 4. 2.

Ex.III.

1. What happens to the motion of molecules in a substance when its temperature increases?
2. When does the system become perfectly ordered?
3. What properties do some types of matter acquire under very low temperature?
4. Why do solids melt and liquids vaporize at very high temperatures?
5. Is there a high temperature analog to absolute zero/
6. What was the temperature of the newborn universe a tiny fraction of an instant after Big Bang?

Критерии и шкалы оценивания компетенций (текущая аттестация в форме тестовых заданий)

Для оценивания результатов обучения в форме тестовых заданий используются количественные критерии оценивания и 4-балльная шкала.

Оценка «отлично» (81-100 баллов);

Оценка «хорошо» (66-80 баллов);

Оценка «удовлетворительно» (51-65 баллов);

Оценка «неудовлетворительно» (50 и менее баллов).

**Комплект оценочных средств к промежуточной аттестации (экзамен)
по дисциплине ОГСЭ.03 Иностранный язык (английский язык)**

**Проблематика для подготовки презентаций
по профессиональной сфере общения**

1. Motion
2. Force and Motion
3. Work and Energy
4. Temperature and Thermometers
5. Heat
6. The Laws of Thermodynamics
7. Electric Charge
8. Magnetism
9. Geometric Optics. Physics Optics
10. Special Theory of Relativity

Критерии оценки к промежуточной аттестации (экзамен):

оценка «отлично» - выставляется студенту, если выполнены все аспекты задания, выступление логично и соответствует поставленной задаче, стилевое оформление устной и письменной речи правильное, умения и навыки продуктивных и рецептивных видов речевой деятельности продемонстрированы полностью, практически отсутствуют нарушения в языковом оформлении речи (1-2 ошибки), продемонстрировано умение взаимодействия со слушателями.

оценка «хорошо» - выполнены все аспекты задания, выступление в основном логично и соответствует поставленной задаче, стилевое оформление устной и письменной речи в основном правильно, однако умения и навыки продуктивных и рецептивных видов речевой деятельности продемонстрированы не полностью (имеется 3-5 нарушений в языковом оформлении речи, 2-3 нарушения в логике высказывания и предъявлении материала, 2-3 неудачи во взаимодействии со слушателями).

оценка «удовлетворительно» - выполнены не все аспекты задания, выступление не полностью соответствует поставленной задаче, в стилевом оформлении устной и письменной речи наблюдаются многочисленные ошибки, умения и навыки продуктивных и рецептивных видов речевой деятельности продемонстрированы в ограниченном объеме (имеются 6 – 10 ошибок в языковом оформлении речи, препятствующих пониманию предъявляемой информации, имеются многочисленные нарушения в логике высказывания и предъявлении материала 4-10, взаимодействие со слушателями затруднено).

оценка «неудовлетворительно» - задание не выполнено, выступление не соответствует поставленной задаче, презентация нелогична, умения и навыки продуктивных и рецептивных видов речевой деятельности не позволяют обеспечить предъявление информации, взаимодействие со слушателями отсутствует.

Составитель _____ Федосова В.И.

Форма контрольно-измерительного материала

УТВЕРЖДАЮ
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естественно-научных факультетов
проф. Стернина М.А.

подпись, расшифровка подписи

___. __. 20__

Направление подготовки / специальность 31.02.04 Медицинская оптика
шифр, наименование

Дисциплина английский язык

Форма обучения очная

Вид контроля экзамен

Вид аттестации промежуточная

Контрольно-измерительный материал

1. Подготовка презентации по заданной проблематике

Преподаватель _____ Федосова В.И.

Форма контрольно-измерительного материала

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Форма обучения очная

Вид аттестации текущая

Контрольно-измерительный материал

1. Тест по профессиональной сфере общения
2. Тест по подготовке презентаций

Преподаватель _____ Федосова В.И.