

**ПИСЬМЕННАЯ РАБОТА УЧАСТНИКА ОЛИМПИАДЫ ШКОЛЬНИКОВ СПбГУ
2019–2020
ПО КОМПЛЕКСУ ПРЕДМЕТОВ «СОВРЕМЕННЫЙ МЕНЕДЖЕР»**

ЧАСТЬ 1. АНГЛИЙСКИЙ ЯЗЫК

ВАРИАНТ 1

TASK 1

Read the passage below about leadership and choose the correct answer, (A), (B), (C) or (D) for each question (1-5).

First time leader

Taking on a leadership role for the first time is tough. There is always pressure on you to do the right things, and to be seen to be doing them. But, unless there's something that needs sorting out urgently, your first few months in the role will be better spent in understanding the people and the situation. One easy mistake to make is to think that you, as leader, the top person with the top salary, have the sole responsibility and the know-how to solve every single problem yourself. And you can be sure that others will encourage you to think that way, **since it takes the pressure off them**, and it satisfies their natural urge to leave the solving of problems to others. Instead try using existing resources to identify the current position and the ways to change it for the better.

Start by consulting widely, beginning with the people who now report to you direct, as these are most likely to be the people with the expertise and experience to tackle some of the problems that are identified. A series of one-to-one meetings, though time-consuming, will be worthwhile, especially if they are structured to provide you with the information you need to make decisions later on. Two useful questions are: 'What do you see as the biggest problem facing the department now?' and 'What one change would make the most difference to our success?' From their answers you can build up a picture of your people, as well as of the issues. Some will consider the needs of the department as a whole, while others may just concentrate on their own particular concerns. You will also have had personal contact with each person and can judge who you will work well with in the future.

Overlap in their responses is a useful pointer to the priorities needing your attention. If there is no duplication in problems or solutions, it means that you have inherited a disunited group which will need some team-building and restructuring. If no clear picture emerges, it means that your people are part of the problem: you will need to make them aware of this.

At the same time, consult with customers. Be open to criticism and to praise. Compare the views of your department with this external viewpoint and see where the biggest gaps are. This will help to identify areas for action.

While you are data-gathering, have a look at the figures. Apply different measures from the standard ones. You probably lack knowledge about which company products are profitable, and you recognize that staff costs are a key factor. So, ask for an analysis of profitability per employee. There will be some grumbling that the new figures involve extra work, but the analysis will reveal how many and what kind of staff your company really needs.

Finally, a key issue for you as a new leader is to establish priorities. If you have done your research well, you will have identified a number of areas for action. Bring your senior team together and tell them about your research findings, both the problems and the suggested solutions.

Together, plot the solutions on a big graph, with one axis relating to the amount of difference the action would make; and the other axis to the ease of implementation. This will prompt useful discussion on the issues and the means of resolving them. In selecting priorities, you might well gain volunteers to tackle some of the tasks.

Agree actions, assign responsibilities and establish dates for completion and progress reviews.

1. How should you structure your first meetings according to the writer?
 - A Explain to each member of staff the problems facing his or her department.
 - B See people individually and ask each one the same questions.**
 - C Ask each member of staff to help in setting priorities for action.
 - D Bring everyone into the discussion to get an agreed plan of action.
2. Getting the same answers from different people during your research tells you that
 - A the people who are under you clearly do not work well together.
 - B a lot of your department's problems are caused by the people themselves.
 - C you have identified the most urgent issues needing your attention.**
 - D your department is working well despite a number of problems.
3. It is useful to talk to customers about the performance of your department because
 - A they are likely to be more honest and open than your own staff.
 - B it makes your customers feel that their opinions are important to you.
 - C it gives you an opportunity to criticize or praise them.
 - D you can evaluate what they say against what your own staff told you.**
4. What might you learn from the kind of financial analysis that the writer recommends?
 - A that you need to employ fewer people, or people with different skills**
 - B that you can increase profitability by using different measures
 - C that this kind of financial analysis involves a lot of extra work
 - D that financial data must be combined with other information to give a full picture
5. According to the writer, using a graph as part of the meeting with senior staff is a good way to
 - A set deadlines for completing the work and reporting back.
 - B give feedback to your staff on the results of your research.
 - C get your staff talking about the issues and what to do about them.**
 - D show which members of staff should tackle the various problems.

TASK 2

Explain the meaning of the phrase “since it takes the pressure off them” from the text in about **20-50 words**.

Sample answer: *If your staff can encourage you to do all the problem-solving, it means they don't have to do it.*

TASK 3

Write your answer to the question below in **100-150 words** in an appropriate style. Use your own words as far as possible. Make sure your answer is well-structured, argumentative and logical.

Which piece of advice about first time leadership, given by the author, is the most valuable? Why?

ВАРИАНТ 2**TASK 1**

Read the passage below about leadership and choose the correct answer, (A), (B), (C) or (D) for each question (1-5).

Starting up a business: service and manufacturing sectors compared

Starting up a business is easier in the service sector than in manufacturing. A new manufacturer has to invest heavily in factory premises, machinery and staff whereas a service sector start-up requires a much smaller initial investment. However, these new service sector firms often take a long time to build up a client base. They rely heavily on **word of mouth** to attract customers, a slow process that causes a few uncomfortable months while waiting for customers to arrive. With few customers, cash flow is minimal, but the start-up bank loan still has to be serviced, and there may be promotional costs like price cuts or free samples.

In contrast, new manufacturers have to find more start-up capital. They take the risk of a high initial investment only because they know there is a ready market for their product. On the other hand, the service sector start-up is more speculative, based on the hope that people will want the service offered, so payback may be seriously delayed. But service sector start-ups have one big advantage over manufacturing. A restaurant, for example, could be set up in a few weeks, enough time to find premises, buy equipment 'off the shelf' and recruit staff. A manufacturer, on the other hand, needs about a year to find suitable premises, install machinery and make deals with suppliers of materials. This delays the time taken for cash inflows to start offsetting the start-up costs for the manufacture.

Cash flow is also influenced by the way demand may vary according to the time of year. Many manufacturers face a seasonal pattern of demand for their product, but the seasonality is more acute for many service sector firms. Manufacturers can produce stock before their seasonal peak, thus allowing them to spread the pressure on the production process. But for service providers who make most of their money during one peak period, seasonality increases the level of risk. If the peak season fails, e.g. ice cream sales crash because of a cold summer, the whole business could collapse before the next peak season.

Even more importantly, service providers have to respond instantly to changes in customer demand. Any variation, whether caused by seasonal factors or changes in fashion, hits service providers immediately. This implies an even greater need for a market-oriented approach by service providers. There is, however, a positive aspect for service firms: unlike manufacturers, they are less likely to be caught with huge stocks of unwanted products.

A firm's financial success depends on adding value to its products, that is, selling its products at a price that is higher than the cost of making them. In setting a price, companies must ensure that their customers believe that the product or service is worth the price being charged. This is harder for service providers. Customers can calculate more or less the cost of providing a restaurant meal or painting a room. It's much harder to judge the cost of manufacturing products like cars or refrigerators. Thus, service providers have to work much harder to add value to their services while avoiding any suspicion of overcharging. The implication of this is that manufacturers are likely to find it easier to trade with higher profit margins than service sector firms.

1. Why is a service business easier to start up than a manufacturing business?
 - A It needs less capital to set up the business.**
 - B It is more aware of what its customers want.**
 - C It has no difficulty finding trained staff.**
 - D It depends on personal recommendation.**
2. New service sector businesses may face a cash flow problem because they
 - A have to reduce prices in order to attract customers.**

- B** cannot always get a big enough loan from their bank.
 - C** have used most of their capital to set up the business.
 - D may not have an immediate demand for their services.**
3. Variation in demand is not usually a problem for manufacturers because they
- A** need less cash once the initial investment has been made.
 - B** know that there is a steady market for their product.
 - C can use off-peak periods to build up stocks of their product.**
 - D** are able to reduce their prices to encourage sales in off-peak periods.
4. Why do manufacturers suffer when customer demand disappears?
- A** They cannot respond quickly to changes in the market.
 - B** They make most of their money in peak periods like Christmas.
 - C They might have a lot of stock that they cannot sell.**
 - D** They have to keep to very strict budgets.
5. Manufacturers trade with higher profit margins because
- A** their initial investment is higher so they need a higher return.
 - B their customers are unaware of the costs involved in manufacturing.**
 - C** their costs include a much higher budget for advertising and promotion.
 - D** their products are generally more expensive to make.

TASK 2

Explain the meaning of the phrase “**word of mouth**” from the text in about **20-50 words**.

Sample answer: *An unpaid form of promotion in which satisfied customers tell other people how much they like a business, product or service.*

TASK 3

Write your answer to the question below in **100-150 words** in an appropriate style. Use your own words as far as possible. Make sure your answer is well-structured, argumentative and logical.

If you had an opportunity to start your own business, what would it be? Why?

ЧАСТЬ 2. МАТЕМАТИКА**ВАРИАНТ 1****ЗАДАНИЕ 1**

Банк «Стабильность» предлагает клиентам открыть вклад на 3 года с постоянной процентной ставкой $r\%$. В банке «Рост» клиентам открывают вклад на 3 года, процентная ставка увеличивается ежегодно на одну и ту же величину, причем во второй год она равна $r\%$.

Какой банк следует выбрать вкладчику для получения наибольшего дохода, если

- А) для вкладов не предусмотрена капитализация процентов;
- Б) для вкладов предусмотрена капитализация процентов.

ЗАДАНИЕ 2

Компания Space Explorer отправляет миссию на планету X-Mars для добычи 5000 X-Diamond и 10000 X-Emerald. Эти драгоценные камни добывают роботы двух разных типов, причем робот первого типа для добычи одного камня X-Diamond тратит 4 планетарных часа, а робот второго типа справляется с добычей одного камня X-Emerald за 1 планетарный час. Компания может доставить на X-Mars всего 120 роботов.

- А) Найдите наименьшую возможную продолжительность миссии (в планетарных часах), если роботы обоих типов приступают к работе одновременно и действуют независимо друг от друга.
- Б) Найдите наименьшую возможную продолжительность миссии (в планетарных часах), если роботы второго типа приступают к работе только после полного окончания работ роботов первого типа.
- В) Найдите наименьшую возможную продолжительность миссии, если роботы первого типа могут работать только планетарной ночью, а роботы второго типа – только днем. На X-Mars продолжительность дня и ночи одинакова и равна 8 планетарных часов.

ВАРИАНТ 2**ЗАДАНИЕ 1**

Банк «Стабильность» предлагает клиентам открыть вклад на 3 года с постоянной процентной ставкой $r\%$. В банке «Рост» клиентам открывают вклад на 3 года, процентная ставка увеличивается ежегодно в одно и то же количество раз, причем во второй год она равна $r\%$.

Какой банк следует выбрать вкладчику для получения наибольшего дохода, если

- А) для вкладов не предусмотрена капитализация процентов;
- Б) для вкладов предусмотрена капитализация процентов.

ЗАДАНИЕ 2

В пещере Кошья есть два источника – с живой водой и с мертвой водой. Пузырек живой воды наполняется за 15 минут, пузырек мертвой воды набирается за 30 минут. Кошья пообещал Бабе Яге передать 500 пузырьков живой воды и 1000 пузырьков мертвой воды. Кошья может привлечь всего 80 помощников, которые будут набирать или только живую воду, или только мертвую.

- А) Найдите наименьшее время выполнения заказа Бабы Яги, если оба источника доступны одновременно.
- Б) Найдите наименьшее время выполнения заказа Бабы Яги, если по технике безопасности сначала можно набирать только живую воду, а потом мертвую.
- В) Найдите наименьшее время выполнения заказа Бабы Яги, если источники доступны попеременно, каждый по 2 часа.

ЧАСТЬ 3. ТЕСТИРОВАНИЕ

Задания по тестированию не подлежат публикации.

ЧАСТЬ 4. ДЕЛОВАЯ ИГРА (СОВРЕМЕННЫЙ МЕНЕДЖЕР)

Предлагается ситуация для работы в команде от 4 до 8 человек.

Ситуация 1**НЕПРИНЯТЫЙ ЗАКАЗ**

У Типографии подписан договор с Заказчиком на печать тиража упаковки для сыпучих продуктов в 10 000 штук на сумму 42000 руб. Всю работу ведет Агентство — размещает макет, курирует сроки и т.д. Агентство утвердило и подписало макет у Заказчика и передало его Типографии, за исключением фона (подложки), который представитель Агентства утвердил самостоятельно, выбрав цвет по раскладке. Тираж напечатан весь в указанные сроки. Заказчик тираж не принял, мотивируя тем, что цвет фона его совершенно не устраивает: он хотел цвет вареной сгущенки, а получился цвет <детской неожиданности>. Типография защищается: макет был подписан и утвержден, мы все сделали по правилам. Заказчик: я не знаю вашей кухни, меня не волнует, тираж не принимаю. Агентство: договор между Вами (Заказчик и Типография) разбирайтесь.

Роли:

Типография — сохранить отношения с Заказчиком, выйти из этой ситуации с минимальными издержками.

Агентство — сохранить отношения с Заказчиком, не участвовать в <разборках>, устраниваться.

Заказчик — получить заказ надлежащего качества без дополнительной оплаты.

ИЛИ**Ситуация 2****ВЫСТАВКА**

Фирма планировала принять участие в выставке в другом городе. Сделала заявку, подписала договор и произвела предоплату. Потом в силу объективных обстоятельств была вынуждена отказаться от участия в последний момент. К этому времени вся сумма за участие была проплачена. Фирма предупредила Организаторов о своем отказе сначала устно (по телефону), потом направила письмо с официальным отказом. Организаторы отказываются вернуть деньги, мотивируя тем, что фирма вышла на них с письменным отказом непосредственно перед выставкой и что по условиям договора <возврат платежей не производится>. Ситуация конфликтная. Фирма требует вернуть деньги, так как участия не было и услуги не были оказаны, и никаких потерь у Организаторов в связи с их отказом не было — места на выставке и сейчас не все распроданы. Информационным спонсором выставки выступает кампания, для которой фирма является одним из старых, надежных и ценных клиентов.

Роли:

Организаторы выставки — не возвращать деньги, которых реально нет — они истрачены.

Информационный спонсор — сохранить хорошие отношения с обеими сторонами конфликта.

Фирма — вернуть деньги, при необходимости прибегнув к помощи Информационного спонсора.