**End-of-term Question List, 1st year**

1. **Smart cities are those who manage their resource efficiently. How far do you agree or disagree to the statement and why?**

I absolutely agree with this statement and believe that in today's world it is important to manage resources effectively. And only those cities that do so can be called 'smart'. And in my opinion, that is the main condition for a smart city.

1. **How do digital solutions change our life?**

Digital solutions make our lives simpler. For example, delivery drones deliver orders to our homes, smart traffic lights help fight (or «to solve problem of») traffic jams, smart lighting saves electricity, and vacuum waste chutes make our city streets cleaner.

1. **What is Internet of things? What makes it different from the global network of Internet?**

The Internet of Things is a local network of connected devices, while the Internet is global. A prime example of the internet of things is the smart home. Imagine, you wake up, the smart watch registers it, the curtains open, the coffee machine starts making coffee, the toaster starts making toast, and the music comes on.

1. **How does IoT help to make our cities smart?**

IoT helps connect different smart systems in cities. For example, IoT is used to create networks of cameras and traffic lights that help monitor traffic situations and change their modes of operation.

1. **How do smart cities make our life safer (leakage detection, monitoring roads, etc.)?**

For example, smart cameras can record crime and automatically call the police, or analyse the traffic situation and change traffic lights accordingly.

1. **What does machine-to-machine technology imply?**

Machine-to-machine technology is a technology that enables networked devices to exchange information and perform actions without manual assistance from humans.

1. **How are smart cities rising to meet the challenges of rapid urban development?**

Smart cities take special approaches to the design of new districts. And all social infrastructure, transport and the use of different technologies are built in.

1. **What environmental and health impacts does increasing urbanization, especially in developed countries have?**

Various ecosystems are in danger due to increasing urbanisation, but smart cities in developed countries are trying to preserve them. But of course, many animals leave the areas that are being developed. Also in developed countries, they don't build factories near new developments, but replace old ones with food malls and public spaces, which reduces the risk of disease. And they also pay special attention to health care.

1. **What does the term “smart cities” mean? Give examples.**

Smart cities are cities that use different technologies and the internet of things (IoT) to manage it. Examples of smart cities: Singapore, Seoul, Tokyo, and others.

1. **Speak about intelligent traffic management.**

Intelligent traffic management involves the use of smart traffic lights and video cameras. The cameras read the situation on the road and change their mode of operation depending on it. And such technologies are used in Russia, for example, in Moscow or St. Petersburg.

1. **What is intelligent lightning? How does it work?**

Intelligent lighting helps you save electricity and resources. How does it work? For example, if there are no people on the street, the lights do not work and come on when someone walks down the street.

1. **How do digital apps change the way we move around the city?**

Digital apps make it easier to navigate the city. In Russia, there is a very good example - Yandex Maps and Yandex Metro. In these apps, you can find out where you need to go to change from one underground line to another, which exit you need, and which car is the best one to take. You can also use digital apps to call a doctor or pay for utilities, such as Mos.ru in Moscow.

1. **Would you like to live in a smart city? Why / why not?**

I would like to live in a smart city because the standard of living there is high. And I would like to live in a city where orders are delivered by drones, where crime is low, security is high, and various digital technologies are used.

1. **What privacy implications might smart cities come with?**

Smart cities could face data leaks, such as 3D facial models for FaceID as in the Moscow underground, passport data or travel history. And that is why I think smart cities need cybersecurity specialists.

1. **Imagine it’s 2046, 25 years from now, and you’re in a major metropolitan city. What do you think the city and your daily routine looks like?**

I believe that in 2046, the city of the future will be very green, with well-developed infrastructure, variable-storey houses (or is it low-rise?), well-developed public transport, and major urban highways running underground. In my opinion, daily routine would not be much different from today's, but I think I would spend less time travelling, thanks to good transport.

1. **Will the skyscrapers of the future be different from what they are now? How?**

I don't think there will be skyscrapers in the future. And modern urbanists believe that the cities of the future will have low-rise buildings, because skyscrapers have many disadvantages. For example, high traffic loads and poor safety. Just imagine what would happen if there was a fire.

1. **What issues do modern cities face? What are the multifaceted solutions? Give successful examples from Mexico, Great Britain (video).**

Modern cities are faced with overcrowding, motorisation and other problems. These can be solved by developing public transport and building low-rise houses. In London, for example, there are special regulations that limit the number of storeys in new districts.

1. **How does the 21st century change the mindset, e.g., what are the new alternatives to adding another lane in order to avoid road congestions? (video)**

An alternative to adding another lane to avoid traffic congestion is to add a lane for public transport as well as bicycle lanes. The urban norms of the 21st century call for the development of public transport, but not the construction of highways through cities.

1. **Speak about the project of Palo Alto? Why is it innovative?**

**☹ ☹ ☹**

1. **Tell about a book / movie about future you would recommend to read / watch and why.**

I would like to talk about the book Global Cities: Past, Present and Future. This book explores the evolution of global cities - their formation, rise, development and future trends. And I think this book can be used as a handbook for the urbanists.

1. **How do you think cities will look like further in the future, say, 2100?**

I think that in 2100, the cities of the future will have low-rise buildings, public spaces, bicycle paths, clean energy and good public transport.

1. **Will the building materials change over the time? If yes, how?**

I believe that in the future, environmentally friendly recyclable materials (just not wood) will be used and that a recycled foam block house will be a reality.

1. **What is Moby Mart? Do you think it has future? Why / why not?**

Moby Mart is a mobile shop without shop assistants and cashiers. I think it has no future and that the future will see the development of robotic delivery.

1. **What difficulties should be overcome before automatic shops in the streets become reality?**

First of all, the logistics have to be sorted out so that the rubbish is removed from the shops at the right time and so that they are not empty. And it is also important that there is a low crime rate.

1. **Use information about a project in South Africa to illustrate how technology can improve cities.**

**☹ ☹ ☹**

1. **What stands behind the concept of Big data? How do you feel about it?**

Big data is a huge amount of data that is being processed. I am positive about the concept of Big Data, but I think that special attention should be paid to security.

1. **Do you think you have a healthy life style? Why / why not?**

I don’t think that I have a healthy life style because I have not time for going in gym, I smoking and do not exercising in the morning.

Or

I don't consider myself to be living a healthy lifestyle because I don't have time to go to the gym, I smoke and I don't exercise in the morning.

1. **Is it possible to have a healthy life style in modern world?**

I believe that living a healthy life style in modern world is possible because nowadays we have the opportunity to go in the gym near home, especially in Moscow, and in addition there are many health-food shops and workout spaces. And I consider that the main thing in maintaining a healthy lifestyle is your desire and your motivation.

1. **Why do many people try to have a healthy life style? What is the main purpose of it?**

The main purpose of maintaining a healthy life style is an improvement in your physical and emotional well-being, but this is an extremely important thing in big cities like Moscow. And I think that is why many people try to lead a healthy lifestyle.

1. **Do you think diets are useful or not?**

I believe that proper diets are useful and they can help improve your health. For example, they can help to lose weight or help prevent cardiovascular disease.

1. **What is better for your health: cooking at home, ordering food or eating out? Why?**

I think cooking at home is better for my health because, in my opinion, home-cooking food is healthier than food ordered. Of course, there are cafés and restaurants with healthy food, but I trust them less than I trust myself.

1. **Do you pay much attention to what you eat? Do you consider it to be healthy food?**

I pay a lot of attention to what I eat. I often eat fish, seafood and meat, and I consider it a healthy meal.

1. **Is obesity a great problem in where you live? Why / why not? What causes obesity?**

I think obesity is a problem in Russia because it affects demographics and mortality. Obesity is a serious condition, causing cardiovascular disease and other.

1. **How to take off extra weight? Can calculating calories burnt help?**

You can lose weight through exercise and dieting. Calorie counting can help you plan your training and adjust your diet.

1. **Do you often find yourself under stress? What are the areas of your life where stress situations take place more often?**

I often experience stress. The most frequent stressful situations in my life are in the areas of studies, family and close relationships.

1. **What is the damage of alcohol abuse and smoking to health?**

Alcohol and smoking have a negative impact on the whole body and can cause cancer, cardiovascular disease and other.

1. **What are the threats of an unbalanced dietary pattern?**

**☹ ☹ ☹**

1. **How do digital devices help people to stay healthy? Give some examples.**

Digital devices can help people stay healthier in different ways. For example, a smartwatch can tell you your blood oxygen levels, how many calories you have burned and how many steps you have walked.

1. **What are fitness trackers? Do they really work? What are their strengths and limitations?**

I believe that fitness trackers really work. You can use them to find out your blood oxygen level, the number of steps you have walked, the time or the number of calories you have burned. But the limitation of fitness trackers is that their measurements are inaccurate (or «non-absolute accurate).

1. **What nutrients are good for your brain? Why?**

Omega-3, zinc, magnesium and vitamins A and E are good for the brain because they improve their work.

1. **What are success factors towards a healthy life style?**

The most important thing is discipline and a systematic approach. This will help you to start leading a healthy lifestyle.

1. **Why do people need sleep? Do you usually get enough sleep? If no, what prevents you from doing so?**

People need sleep to replenish their energy. And I don't sleep enough, I'm hampered by insomnia, stress and my job.

1. **Is it vital to keep bedtime and wake-up time the same every day? Why / why not?**

I’m consider that keep bedtime and wake-up time the same every day is vital because it’s helps your circadian rhythms will be stability and in addition it helps leading good physical and mental health.

1. **Can you share some rules to stay healthy, happy and fit for life? What bad habits speak about a hectic lifestyle?**
2. **Give an example of a recent research conducted on healthy lifestyle and contributors towards / against it? Where was it carried out? What were the outcomes?**

**☹ ☹ ☹**

1. **What are possible consequences of sleep deprivation?**

The consequences of sleep deprivation are reduced concentration and fatigue.

1. **Are you an “all-nighter”? If yes, what are the reasons?**

Yes, I am an all-nighter because I have trouble with time management.

1. **How to sleep better? (video)**

To sleep better, don't eat 3 hours before bedtime, ventilate the room and sleep in socks.

1. **How do you define “sufficient sleep”?**

For me, 'enough sleep' is sleep after which you feel good. After it, you feel productive and don't want to sleep.

1. **What’s the best thing about social media and what’s the worst? How can people use them healthily and safely? (video)**

Social media allows me to keep in touch with friends, I'm also interested in seeing what other people are doing, and in my opinion, that's the best thing about social media. The worst thing is that you start comparing yourself to other people and "getting away from the real world"

1. **What are the four foundations for continuing good health? List them and support with scientific evidence.**

**☹ ☹ ☹**

1. **What is threatened childhood and what is it affected by?**

**☹ ☹ ☹**

1. **What kind of research should be conducted to increase awareness of healthy habits?**

**☹ ☹ ☹**

1. **What do you think is the most dangerous form of transportation? Why?**

I think the most dangerous form of transportation is motorcycle because of the lack of protection for the rider and the high risk of getting into accidents.

1. **How often do you use public transport? Are you happy with it?**

I use public transport every day (or «almost daily») and generally happy with it because it helps me save time and avoid traffic jams.

1. **What do you think is the safest form of transportation? Why?**

I think the safest form of transportation is air travel because of the advanced technology and strict safety regulations.

1. **Is it possible to solve the problem of traffic jams by encouraging people to ride bicycles? What are other possible solutions?**

Encouraging people to ride bicycles can be a part of the solution to traffic jams, but other possible solutions include developing more efficient public transport systems, promoting carpooling and telecommuting, and implementing congestion charges in busy areas.

1. **Have you traveled by electric cars? Share your experience.**

I have not traveled by electric cars yet.

1. **What are recent transport advancements?**

Recent transport advancements include autonomous vehicles, electric cars, and high-speed rail systems.

1. **How will future transport provide opportunities to address long-standing issues like urban density, overburdened and aging networks, cost pressures, sustainability etc.?**

Future transport can provide opportunities to address long-standing issues by incorporating sustainable and environmentally friendly technologies, developing more efficient and affordable transportation systems, and reducing congestion in busy urban areas.

1. **What innovations will unlock future space exploration missions?**

Innovations such as reusable rockets, habitat modules, and advanced propulsion systems can unlock future space exploration missions.

1. **What were the very first transport vehicles invented? Give some details.**

The very first transport vehicles invented were likely human-powered modes of transportation such as walking, running, and carrying goods on shoulders.

1. **What did the first attempts to overcome the boundaries of land travel result in?**

The first attempts to overcome the boundaries of land travel resulted in the invention of wheeled vehicles such as carts and chariots.

1. **How did the technology of transportation change with the development of automation?**

With the development of automation, transportation technology has become more efficient, reliable, and safe, leading to advancements in areas such as autonomous vehicles and smart transport systems.

1. **Speak about the advent of an internal combustion engine. What influence did it have on mass transportation?**

The advent of the internal combustion engine in the late 19th century revolutionized mass transportation by making it faster, more efficient, and more affordable.

1. **When did the first controlled sustained flight of a powered craft happen?**

The first controlled sustained flight of a powered craft happened on December 17, 1903, when the Wright Brothers flew their airplane at Kitty Hawk, North Carolina.

1. **How did space exploration start? Which do you think is the main driving force in transport development? Is it the man’s curiosity or practical purposes?**

Space exploration started with the launch of Sputnik 1 by the Soviet Union in 1957. The main driving forces in transportation development are both man's curiosity and practical purposes such as the need for faster, safer, and more efficient modes of transportation.

1. **What are the milestones of transport development?**

Some milestones of transport development include the invention of the wheel, the steam engine, the airplane, the automobile, and the rocket.

1. **Will settlement of humans on Mars ever be possible? Why / why not?**

Settlement of humans on Mars may be possible in the future with advancements in technology and space exploration, but it would require significant resources and a long-term commitment.

1. **What is free space colony like?**

A free space colony would be a self-contained and sustainable community constructed in outer space, with advanced technologies for life support, energy generation, and waste management.

1. **Do you think space should be explored further? If yes, what for and how?**

I think space should be explored further for scientific and technological advancements, such as finding ways to mitigate or prevent natural disasters, discovering new resources, and identifying potential solutions to global challenges such as climate change.

1. **Speak about one transport invention. What was the background? What is the name of the inventor? The date? Its role for the transport development?**

One transport invention is the Ford Model T automobile, invented by Henry Ford in 1908. It played a significant role in the mass production of affordable automobiles, making cars more accessible to the general public and transforming the transportation industry.

1. **Will space tourism ever become reality? Why / why not?**

Space tourism is becoming a reality with private companies like Virgin Galactic and SpaceX developing space tourism programs.

1. **Name some greatest triumphs in space exploration from Sputnik 1 to the first travel to the Moon.**

Some of the greatest triumphs in space exploration include the launch of Sputnik 1, the first human spaceflight by Yuri Gagarin, the Apollo 11 mission to the Moon, the launch of the Hubble Space Telescope, and the landing of the Curiosity rover on Mars.

1. **Name a famous person whose contribution to transport development you consider most significant. Why so?**

One famous person whose contribution to transport development I consider most significant is Elon Musk, the founder of SpaceX and Tesla.

1. **How does the biggest urban growth spurt make the transport problem more acute than ever before?**

The biggest urban growth spurt makes the transport problem more acute than ever before by putting a strain on existing transport infrastructure and causing congestion, pollution, and longer commute times.

1. **Are there examples of autonomous vehicles? Name some of them. (text)**

Examples of autonomous vehicles include self-driving cars from Tesla, Waymo, and Uber, as well as autonomous trucks from companies like Daimler and TuSimple.

1. **How do sharing schemes work in transport?**

Sharing schemes work in transport by allowing people to share rides, bicycles, and other modes of transportation to reduce costs, emissions, and congestion.

1. **Why are cars prohibited is some parts of the world? What are they going to be replaced with? Do you consider it to be the right decision?**

**☹ ☹ ☹**

1. **What do you know about Maglev and Hyperloop One?**

Yes, I do know about Maglev and Hyperloop One. The Maglev is a magnetic cushion train in China that can travel at a high average speed. Hyperloop One is an American transport technology company.