Задание 1. Переведите предложения, содержащий термины и аббревиацию. Запишите перевод ТОЛЬКО терминов/аббревиации, выделенных жирным шрифтом в именительном падеже (см. «Критерии оценивания»).

1. **GRIFFIN** is designed to operate with a suite of additional detectors, which can detect additional kinds of particles, including beta particles, neutrons and internal conversion electrons, in order to produce a unique, overall view of nuclear structure.
2. Calculating plasma transport in tokamaks requires solving a multi-variate coupled set of time-dependent, **PDE**s in torus geometry.
3. Steam explosion calculations have been conducted using Computational Fluid Dynamics or hydrodynamic codes to obtain transient pressure loads. These pressure loads are then used in structural analyses performed by **FEM** codes to assess potential damage.
4. The first nuclear power plant to be licensed in the USA was the **VBWR**, an experimental reactor used to develop BWR nuclear fuel technology and to demonstrate various BWR cycles.
5. The ATLAS experiment at the **LHC** is a multipurpose particle detector with a forward–backward symmetric cylindrical geometry and a near 4π coverage in solid angle.
6. In **HEP**, the search for outliers becomes particularly crucial as it unveils exceptional phenomena or anomalies that hold valuable insights into the fundamental nature of particle interactions.
7. Modern accelerator systems based on laser ion sources have been developed at many research institutions, including **BNL.**
8. The **L-DED** process is one of the most promising powder-based additive manufacturing techniques for metals. In this process, a high-intensity laser beam generates a molten pool into which powder particles are injected.
9. **UHPC** is a unique cementitious composite that exhibits an ideal solution for structural reclamation.
10. In terms of safety, the **SNG** power system is essential to provide reliable power to the NPP on site from various sources. It guarantees the supply of electrical power to the NPP, even during severe accidents.

Задание 2. Прочитайте текст на английском языке и сделайте пересказ текста на русском языке. Объем русского текста должен быть 150-160 слов. Текст, объем которого меньше 135 или больше 180 слов, не проверяется

CERN: ACCELERATING SCIENCE

CERN's main focus is particle physics – the study of the fundamental constituents of matter – but the physics programme at the laboratory is much broader, ranging from nuclear to high-energy physics, from studies of antimatter to the possible effects of cosmic rays on clouds.

A myriad of engineers, technicians and scientists develop novel technology and expertise that can be applied to fields beyond high-energy physics. From materials science to computing, particle physics demands the ultimate in performance, making CERN an important testbed for industry – including large companies, SMEs or recent start-ups. CERN also engages with other stakeholders, such as policy makers, especially those acting in CERN's Member States and Associate Member States.

The scientific advancements of CERN push the frontiers of technology, which has a positive impact on society globally. The transfer of CERN technologies and expertise to society is an integral part of these activities, providing novel solutions in many fields.

CERN’s basic tools – particle accelerators and detectors – also have applications in everyday life. Invented as tools for research, there are thousands of particle accelerators in operation in the world today, of which only a small percentage are used in basic research. The vast majority find applications ranging from medical diagnosis and therapy to computer chip manufacture.

Without the know-how obtained in particle physics, progress in many fields would have been much slower. CERN, in partnership with industry, gives companies expertise that they can apply elsewhere, enabling CERN technology to reach society quickly for the benefit of everyone.

Over the decades, CERN has become a byword for excellence in research, establishing itself as a model for scientific collaboration across borders, technological innovation, training and education. Today, environmental responsibility joins this list. Good environmental stewardship stands prominently among the Management’s objectives and is embedded in every corner of the Organization, with a strategic, proactive approach across the Laboratory and among CERN’s worldwide scientific community. CERN is fully committed to environmental protection and transparent reporting. CERN's public environment reports set out reporting frameworks, setting and monitoring concrete goals for constant improvement.

As a large accelerator laboratory, CERN plays the important role in training future scientists and engineers. It relies on expertise in many engineering subjects, all of which feature in the recruitment and training programmes for undergraduates to doctoral students. There are opportunities for students in applied physics, engineering and computing to learn on the job at CERN and for technicians to train in fields at the cutting edge of technology. The comprehensive range of training schemes and fellowships attracts many talented young scientists and engineers to the Laboratory. Many go on to find careers in industry, where their experience of working in a high-tech, multi-national environment is highly valued. The Laboratory also runs a summer programme for undergraduate students. For professionals further on in their careers, CERN organises highly regarded schools in particle physics, computing, and accelerators.

Moreover, CERN’s education and outreach programmes target learners of all ages, in particular high-school students and high-school teachers. Specifically, CERN Teacher Programmes offer professional development for science teachers from around the world. High-school students can take part in the Beamline for Schools competition, encouraging them to propose an experiment to carry out at a real research laboratory. All of CERN’s education opportunities for high-school students and high-school teachers are supported by and further developed through by Physics Education Research.