ЭКЗАМЕНАЦИОННЫЙ БИЛЕТ № 15

4. Выполните анализ и реферирование текста «Intelligent edge» (15 баллов)

Take a look around your house, office or even the next store you visit, and you'll start to notice that internet-connected devices are bringing us closer than ever before to a world of ubiquitous computing and ambient intelligence. As these Internet of Things (IoT) devices become increasingly commonplace, people will start to expect computing to be more integrated into their lives, to anticipate, understand and seamlessly meet their needs. They will expect software to respond to spoken natural language, gestures, body language and emotion, and for it to understand the physical world and the rich context surrounding each user as they navigate their personal life, their work and the world around them.

This trend has more promise than just bringing additional convenience, productivity and connections to our everyday lives. Smart sensors and devices are breathing new life into industrial equipment from factories to farms, helping us navigate and plan for more sustainable urban cities and bringing the power of the cloud to some of the world's most remote destinations. With the power of artificial intelligence (AI) enabling these devices to intelligently respond to the world they are sensing, we will see new breakthroughs in critical areas that benefit humanity like healthcare, conservation, sustainability, accessibility, disaster recovery and more.

We call this next wave of computing the intelligent edge and intelligent cloud. When we take the power of the cloud down to the device – the edge – we provide the ability to respond, reason and act in real time and in areas with limited or no connectivity. It's still early days, but we're starting to see how these new capabilities can be applied towards solving critical world challenges.

One of the challenges is increasing the world's food supply. The world will need 70 percent more food to feed a global population of 9.6 billion in 2050. Farmers are using the intelligent edge to do precision agriculture with real-time intelligence on soil, even in remote areas with unreliable connectivity. Using Microsoft's FarmBeatssolution, which combines intelligence trained in the cloud to run on a drone, it is possible to create a heatmap of the land that serves as a guide to plant the crops that will best perform in specific locations.