Use of English

Complete the text below by writing a suitable word from the list in each space provided. There are 15 gaps but 20 words are given. Use each word once only. There is an example (*0*) for you. Indicate your answer on the separate Answer Sheet.

The Computer Age

In the nineteenth century, machines changed the world. Suddenly, people ***could (0)*** travel more easily and contact one another **... (1) …** quickly. Work changed, too, and many people got jobs **... (2) …** factories. It **... (3) …** the start of the Industrial Age – the age of machines and factories.

The second half of the twentieth century saw the start **... (4) …** the Computer Age. At first, computers were very difficult **... (5) …** use, and only a few people understood **... (6) …** But soon, computers began to appear both in offices and then homes. Today, they **... (7) …** everywhere. Some people still say that they **... (8) …** never used a computer, but they probably use computers **... (9) …** day – they just do not realize it. This is **... (10) …** there are computers in so many ordinary things: cars, televisions, radios, washing machines…

When **... (11) …** first computers were built in the 1940s and 1950s, they **... (12) …** enormous. In fact, they were as big **... (13) …** a room. In 1949, the magazine *Popular Mechanics* made a prediction: 'One day,' they said, 'computers will be really small; in fact, they **... (14) …** weigh less than 1.5 tonnes.' Now, computer chips are very small. Over the past fifty or sixty years, computers have changed much more **... (15) …** people thought possible.

all	every	much	them
are	had	of	then
as	have	so	to
because	in	than	was
~~***could***~~	more	the	were
			will

Max.: 15

Reading

Part 1

Read the text below and fill in the table in English.

GOCE satellite views Earth's gravity in high definition

The Gravity Field and Steady-State Ocean Circulation Explorer (GOCE) is an environmental monitoring satellite. Launched in 2009, the satellite flies pole to pole at an altitude of just 254.9 km – the lowest orbit of any research satellite in operation today.

The spacecraft carries three pairs of platinum blocks inside its gradiometer instrument that sense accelerations which are as small as 1 part in 10,000,000,000,000 of the gravity experienced on Earth. This has allowed it to map the almost imperceptible differences in the pull exerted by the mass of the planet from one place to the next - from the great mountain ranges to the deepest ocean trenches.

Two months of observations have led to what scientists call "the geoid". It essentially defines where the level surface is on our planet: it tells us which way is up and which way is down.

"I think everyone knows what a level is in relation to construction work, and a geoid is nothing but a level that extends over the entire Earth" explained Professor Reiner Rummel, the chairman of the GOCE scientific consortium. "So with the geoid, I can take two arbitrary points on the globe and decide which one is 'up' and which one is 'down'." The geoid is of paramount interest to oceanographers because it is the shape the world's seas would adopt if there were no tides, no winds and no currents. If researchers then subtract the geoid from the actual observed behaviour of the oceans, the scale of these other influences becomes apparent. This information is critical to climate modellers, who try to represent the way the oceans manage the transfer of energy around the planet.

But a geoid also has many other uses. Having a global level underpins a universal system to compare heights anywhere on Earth. In construction, for example, it tells engineers which way a fluid would naturally flow through a pipeline. Geophysicists will also want to use the GOCE data to try to probe what's happening deep within the Earth, especially in those places that are prone to quakes and volcanic eruptions.

GOCE's extremely low operating altitude was expected to limit its mission to a couple of years at most.

The area the Goce flies over	1.
The height it flies at	2.
Parts of the gradiometer	3.
The result of Goce's mapping	***the geoid***
Definition of the Geoid	4.
With Geoid data on oceans there's more information about the influence of	5.
	6.
Scientists who can use the geoid in their research are	7.
	8.
	9.
The number of years it can hopefully orbit	10.

Max.: 20

Reading

Part 2

Read the text below and answer the questions which follow in English. Give short answers.

Some Interesting Facts about Virtual Reality (VR)

Virtual Reality (VR) is nothing new. In fact, unlike popular belief VR has been around for ages. While it hasn't been open for general consumers initially, but it was the first human experience of VR nevertheless. Just in case you have guessed it already, yes we are talking about the first flight simulator that was built back in 1920. This was closely followed with the development of a prototype VR movie viewing experience dubbed the Sensorama in 1962 by Morton Helig.

As mentioned before the origin of VR dates back to the '60s with the first set of consumer VR products being launched in the late '80s. Incidentally, the VR headsets and the devices failed to sustain in the market till the late '90s. This was more so surprising considering the fact that the VR headsets had garnered mass public interest even then. However, high pricing and the media hype were the main reasons behind its failure.

People may think twice before buying their VR gadget but they won't do so before making a purchase of their favourite smartphone. So for increased popularity of VR it needs to be sold alongside smartphones as in box content. Lenovo already did that.

Apparently the hardware has improved much during the past few decades. The technology behind VR is still the same, with the major difference lying in the portability factor of the headsets. However, the area where developers have really worked upon is the software. The softwares behind VR are far more superior than it was in the past.

A recent study has now concluded that the crave towards VR varies greatly between men and women. As of now the graph is exponentially tilted towards the men, as women still care rather less about VR. Women are mainly into watching music and dance content using VR headsets.

Well, that isn't quite surprising considering the fact that many kids are drawn into the world of technology these days. With smartphones going rampant in hands of kids, it's time for VR to go viral too. However, all depends on how their parents respond to their VR demands!

First time users have reported problems related to motion sickness and headaches. This is apparently because their minds are believing that they are moving around, while they are sitting static in a chair or a couch. Developers are, however, trying their best to reduce this problem as early as possible.

Reading

1. What is the first flight simulator famous for?
2. What was the second important Virtual Reality experience?
3. What happened in the 1980s?
4. When did VR products become really popular?
5. Why was VR not successful in the beginning? (a., b.)
6. What did Lenovo do?
7. What are the main differences between old and modern headsets? (a., b.)
8. To what extent are women attracted towards VR?
9. What do most women watch through Vr headsets? (a., b.)
10. What are the negative effects of using VR headsets for the first time? (a., b.)

Writing

You are the technical assistant of the HR manager. You would like to buy some water purifiers for the company. You saw this advertisement in a paper. Write a letter of inquiry in 80-100 words to the manufacturer.

Say

- why you are writing;

Ask

- for technical details (capacity of machine, quality of water);
- about delivery conditions.
- for a specification brochure.