



CLASS X
ADDITIONAL ENGLISH
LESSON 5 - THE AGE OF COMPUTER
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SOLUTIONS

COMPREHENSION

A. Complete the following statements:

1. Our train tickets are often reserved by computers.
2. Diseases are also often diagnosed with the help of computers.
3. The first calculating device used was the ten fingers of a person's hand.
4. There is evidence that *abacus* was used as far back as 3500 B.C.
5. Leibnitz was a German mathematician.
6. The first generation of computer, which used vacuum tubes came out in 1950.
7. Fourth-generation computers are 50 times faster than third-generation computers.
8. Today's computers will most be obsolete by 1990.
9. The second generation computer could perform work ten times faster than their predecessors.
10. Automatic computers may broadly be classified as Analog and digital.

B. Answer the following questions in one phrase or sentence each:

Q1. What is a computer?

Ans: A computer is an electronic device that can be instructed to carry out sequences of arithmetic or logical operations automatically.

Q2. Who designed "The Analytical Engine"?

Ans: An Englishman named Charles Babbage designed it.

Q3. In which year was the first digital computer completed.

Ans: The first digital computer was completed in the year 1944.

Q4. Who developed the idea of keeping instruction for the computer inside the computer's memory?

Ans: John Von Neumann developed the idea of keeping instruction for the computer inside the computer's memory.

Q5. When did the third generation computer appear on the market?

Ans: The third generation computer appeared on the market in 1965.



Q6. Draw a comparison of the speed of 3rd generation computers and 4th generation computers.

Ans: The 3rd generation computers could do a million calculations in a second while the fourth generation computers are 50 times faster than 3rd generation computers and can complete approximately 1,000,000 instructions per second.

Q7. When can today's computer be obsolete?

Ans: Today's computer will be obsolete by 1990.

Q8. What do the following abbreviations stand for?

- i) IBM ii) FNLAC iii) ROM iv) RAM v) RISC vi) WWW
vii) ATM viii) CAL

Ans: The abbreviations of the following are

- i) **IBM - International Business Machines**
ii) **FNLAC – Frederick National Laboratory Advisory Committee**
iii) **ROM – Read Only Memory**
iv) **RAM- Random Access Memory**
v) **RISC – Reduced Instruction Set Computer**
vi) **www - World Wide Web**
vii) **ATM – Automated Teller Machine**
viii) **CAL – Computer Aided Learning**

Q9. What are the two factors for the sudden growth of computers?

Ans: The two factors are-

- i) The rapid technological improvements from the early 1900s, and
ii) The availability of vast sums of money for computer development.

COMPOSITION

Answer the following questions in about 100 words each:

Q1. Trace the history of the development of computer generations.

Ans: The first generation came out in 1950 and computers could perform thousands of calculations per second. In 1960, the second generation of computers was developed and could perform work ten times faster than their predecessors. They were smaller, faster and more dependable than first-generation computers. The third generation computer came out in 1965 and could do a million calculations in a second and controlled by tiny integrated circuits and smaller and dependable. Fourth- generation computers arrived in 1971. A 1000 tiny circuits can be fit into a single chip and are 50 times faster than third-generation computers and can complete 1000,000 instruction per second.



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Q2. Write a brief account of the various uses of computers.

Ans: Computers could figure out long lists of mathematical problems, all at a very fast rate. They are used to perform several industrial tasks, design product. It is used in various fields of medicine and in our daily life to convert raw facts and data into meaningful information and knowledge. It has been said that if transport technology has developed as rapidly as computer technology, a trip across the Atlantic Ocean today would take a few seconds.

Q3. Describe the system of calculation used before the introduction of actual computers.

Ans: The very first calculating device used was ten fingers of a person's hands. Then the *abacus* was invented, which was used as far back as 3500 B.C. Children used to learn simple calculations on a kind of abacus. During the 17th and 18th centuries, J. Napier devised a mechanical way of multiplying and dividing. Henry Briggs used Napier's idea and produce logarithm tables. After this, Isaac Newton and Leibnitz invented calculus. But the first real calculating machine appeared in 1820, which saves time and reduces mistakes. In 1830, Charles Babbage designed a machine called "The Analytical Engine", which provide the necessary facts about problem to be solved.

Q4. Relate how a computer is a boon/gift of modern technology.

Ans: In our day to day lives, computers are playing an integral role. They are used in all kinds of sectors and businesses. Computers are penetrating through the modern society, people are getting more and more optimistic about the promises its invention made. It can help us to save so much of manual powers, cost and time. Computers also ensure more accuracy. They can be used to observe and predict traffic patterns. Computers can also drastically change the way agricultural tasks and businesses are carried out all over the world. The invention of this unbelievable machine has brought a ray of hope in the darkness of the sick citizen's world.

Q5. Describe the role of computers as a source of entertainment as well as amusement.

Ans: Computers are quickly taking over the entertainment industry. With the creation of the Internet and faster processors, file sharing and entertainment became a popular use for personal computers everywhere. Computers now have almost unlimited access to any song, any movies and games. Computers help in improving productivity by automating time consuming, repetitive and monotonous processes. Computers are widely used to create special effects in Big Budget movies. Besides general use, computer photo edition programs and animation programs are also the sources behind most movies and professional photographs. Thus computer plays the vital role as a source of entertainments as well as amusement.



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3. The Third –Generation computers appeared on the market in

- a) 1946 b) 1950 c) 1960 d) 1965

Ans: d) 1965

4. Considering the present rate of computer technology, today's computer will most certainly be obsolete by

- a) 1980 b) 2000 c) 1990 d) 1995

Ans: c) 1990

Q9. Write a paragraph on a world without computers.

Ans: Now-a-days, we cannot imagine our life without computers and the fact is that they have become so important that nothing can replace them. They seem to be everywhere today. Since 1948 when the first real computer has been invented our life has changed so much that we can call it real digital revolution. So, it would be so difficult to spend a life without computers.



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