

Guide to Answers – Tutorial 4

1. This is essentially the same as question 4 last week. It is a matter of opinion on which people differ – it can be argued that an electronic computer carries out automatic computing even though the programs and data are separate.
2. The ENIAC, because it was a huge electronic calculating machine; the Colossus, because it was a single-purpose electronic machine, although it could be programmed by 1945; Konrad Zuse's mechanical and electromechanical calculators. (Other people argue that the first two are computers.)
3. It stopped Zuse developing his computers, but it stimulated Turing and von Neumann; Turing because he saw how he could apply his ideas, and von Neumann because he was involved with the EDVAC.
4. Both Turing and von Neumann. Most text books talk about 'the von Neumann architecture'.
5. Electronic? Contains stored program? Digital? Calculates automatically? Some or all of these?
6. The notion of the universal computer – one that could do all the tasks.
7. It could cope with mathematics and business computing.