

History Quiz, for today's history teachers, by Glenn C. Koenig

Answer sheet version (Although there is a lot more than the answers presented here. Hint: forget the history books and go directly to the internet.)

by Glenn C. Koenig

The questions below all concern significant historical events that have a direct bearing on life today. The people and events referenced here are at least of equal importance to that of any political, military, or literary figure or event.

1. Who was David Sarnoff? What was his first major idea and was he able to bring it to fruition?

He put forth the idea that radio could be used to broadcast culture to massive numbers of people instead of just single messages from one 'station' to another. At first, his superiors responded to his suggestion by asking, "Who would want to send a message to nobody in particular?" His idea formed the foundation for all of radio and television broadcasting.

2. What did a little known company by the name of Ampex do that other bigger companies (and even Bing Crosby, the famous singer and actor) fail to do, even after working for years and spending thousands of dollars? For extra credit, one of the team working at Ampex now has an entire technical system named for him. Who is that person?

They developed the first practical video tape recorder in 1956. Their system, using rotating recording heads, is the basis of almost all videotape recorders since then. Ray Dolby went on to develop the Dolby system of audio recording.

3. What famous person laid the groundwork for electrocution as a means of capital punishment? Why?

Thomas Edison. He was trying to discourage the public acceptance of alternating current, because it would cut into his already established business in direct current equipment. His idea was to 'prove' that A.C. was more dangerous than D.C. by electrocuting animals in public, and finally human beings. Eventually, A.C., then being promoted by Edison's main competitor, Westinghouse, became the standard because it was easy to convert it to high voltages in order to send it over long distances using what we now call 'high tension wires.'

4. What does NTSC stand for? When was it created and why? For extra credit, what's the slang version?

National Television System Committee. The committee was formed, and created the standard bearing its name, in 1941 after equipment manufacturers couldn't get the

FCC to sanction any one of their proprietary standards for television transmission. A second NTSC (known as NTSC II) was formed in 1953 to set the standard for color television (which the first standard did not address). The standard is still in use today, over 60 years later. The slang version is "Never Twice the Same Color" due to inaccurate colors reproduced by the system in early TV models.

5. What significant electronic computer was built before ENIAC? When and where was it built, what was it used for, why was it destroyed, and what caused it to be omitted from so many history books?

The Colossus machine was built by the British in 1943 to decode secret German messages. The project was highly classified and the government was worried that knowledge of it could hamper future decoding efforts if another world war took place. This had in fact happened at the end of World War I, when everyone thought it was the "war to end all wars." After WWII was over, the machines were all destroyed and the blueprints burned.

6. Jack Kilby and Robert Noyce both invented the same thing around the same time, without knowing each other. What was it? When did they do it?

They both developed the integrated circuit, one at Texas Instruments and the other at Fairchild Semiconductor. They were both working in the 1958 to 1959 time frame. This development has allowed electronic circuits to take up one millionth of the space required for the same functions as before, paving the way for computers, cell phones, and 'chips' inside of almost every appliance or device today.

7. Dan Bricklin and Robert Frankston worked together in Arlington, Massachusetts to develop something. What was it? Give at least one major impact it had at the time.

Dan Bricklin invented the spreadsheet program for personal computers. He and Robert designed it to work within the limited memory of an Apple II computer. They worked in a room on the third floor of a house on Broadway. Prior to this, personal computers were bought for home use and by hobbyists. After their product, VisiCalc, went on the market, businesses began purchasing the machines. This, in turn, convinced IBM to develop their first PC a few years later, something they reportedly had not planned on doing before that.

8. What did Chester Carlson do?

Starting in the late 1930s, Chester Carlson worked diligently to produce what he called "electrophotography." The name of his process was eventually changed to xerography, and the company who licensed it from him changed its name to match: Xerox. Although other copying processes existed prior to this, his was the first commercially successful one that worked with plain paper. The principles he developed also form the foundation for all laser printers in use today.

9. Who was Herman Hollerith? What's the current name of the company he started?

In 1890, the Census Bureau in the U.S. predicted that they would not have the results of the census taken that year until after 1900, when it would already be time to take the next census. Herman Hollerith was hired to develop a faster way to tabulate (i.e. enter into table form) the census results. He used paper cards with holes punched into them with a system of electromechanical counters to do the job. His company, the "Computing, Tabulating, Recording Company" eventually changed its name to International Business Machines, or IBM.

10. Who is responsible for the scrambled arrangement of letters on today's computer keyboards? Why is that the arrangement? For extra credit, who in the 1930s came up with a different arrangement and why isn't it in use today?

Around 1872, Christopher Sholes designed his first typewriter. However, his prototype tended to jam when keys close to each other were struck in succession. He endeavored to rearrange the letters to alleviate this problem and came up with the arrangement we have today. In the 1930s, Professor August Dvorak did extensive studies on typing and came up with a completely different arrangement that he claimed was vastly superior. However, since then, others have contended that his results cannot be duplicated. Since a given person can only be proficient on one arrangement at a time, and changing arrangements requires extensive practice, the investment in changing arrangements is too high for most people to switch and thus the original arrangement has remained the standard.

Extra credit: Name the three major advances developed by Edwin Howard Armstrong.

In radio, he developed the regenerative circuit (1912), then the superheterodyne circuit (during WWI), then the first practical frequency modulation (FM) system (1930s).