

1. Technology

Often classified as voiceband or cable, what type of device is used to convert signals between digital and analog? Many are now the size of credit cards. Identify these devices that allow computers to communicate with each other serially.

ANSWER: Modem(s)

2. British Literature

Which poem in six-line stanzas was probably the first published work by William Shakespeare? It concerns a goddess who tries to win the love of a youth. Unfortunately, the youth dies.

ANSWER: Venus and Adonis

3. Physics (10 Seconds)

Which French scientist used torsion balances to study electrical forces during the 1780s? He discovered that electrical forces between two objects vary directly with the product of the amounts of charge and inversely with the square of the distance between them. The equation stating this and the most common unit of electrical charge are both named after him.

ANSWER: (Charles de) Coulomb

4. Pop Culture

It was not the least bit memorable, but hopefully you can remember the exact title. The plot involved a boy from Pennsylvania meeting a girl from Texas in a Florida bathroom. Name this summer movie starring contestants from the first season of American Idol.

ANSWER: From Justin To Kelly

5. Religion/Mythology

Who was the priestess of Aphrodite in Sestus on the Hellespont? Her lover would swim to her every night until one lightless night when he died trying to cross. This priestess killed herself upon finding the body of her lover Leander.

ANSWER: Hero

6. United States History

Which Congressional Act from 1935 is overseen mostly by the Department of Health and Human Services? It originally taxed incomes up to \$3000, but this amount has been raised significantly over the years. Though it included state grants and unemployment insurance, it is most closely linked with old-age insurance.

ANSWER: Social Security (Act)

7. Algebra (30 Seconds)

What is the log base three of 243?

ANSWER: 5

8. Current Events

In which state on Wednesday did Gary Leon Ridgway admit to murdering forty-eight women? He claims that they were all prostitutes, and he dumped many of their bodies into the Green River. Prosecutors are

investigating whether any of the murders took place in Oregon.

ANSWER: Washington

9. World Literature

Who was sentenced to death on December 22, 1849, which luckily turned out to be the same date that Tsar Nicholas the First decided to commute death sentences? After nine years in prison, he returned to his career as a writer. Name this author of Notes From Underground, The Possessed, and The Brothers Karamazov.

ANSWER: (Fyodor) Dostoyevsky

10. Biology

What is formed by a mutual symbiosis between fungi and photosynthetic organisms? They sometimes look like moss but can survive almost anywhere, including the arctic tundra. This term begins with an L.

ANSWER: Lichen(s)

11. Language Arts

Which eight-letter word refers to a continuous sequence or range? It is commonly used to describe the colors found in the breakdown of white light. Identify this word beginning with the letter S.

ANSWER: Spectrum

12. Music

From 1813 to 1815, which composer, at the insistence of his father, worked as an elementary school aide? He once completed 146 songs in a single year, but he might be remembered best for his eighth symphony, which he did not finish.

ANSWER: (Franz Peter) Schubert

13. Geometry/Trigonometry (30 Seconds)

Expressing your answer as a fully simplified fraction, convert 72 degrees into radians.

ANSWER: $2\pi/5$ (or two-fifths pi) (Radians)

14. World History

Whose first term as Chancellor of the Exchequer in 1852 and first term as Prime Minister in 1868 lasted for only a few months each? He often wrote novels when his party, the Conservative, was out of power. During his second stint as Prime Minister, he brought the Suez Canal and India under British control. Name this rival of William Gladstone.

ANSWER: (Benjamin) Disraeli

15. Astronomy/Earth Science/Geography

Which lake was first seen by Europeans in 1858 and had its water level raised in 1954 by the Owens Fall Dam? It is fed by the Kagera River and located on the border of Kenya, Tanzania, and Uganda.

ANSWER: (Lake) Victoria (Nyanza)

16. United States Literature

The Bentleys, the Hardys, the Kings, and the Willards are all residents of which town? They appeared in a 1916 story collection subtitled “A Group of Tales of Ohio Small Town Life” written by Sherwood Anderson.

ANSWER: Winesburg(, Ohio)

17. Chemistry (10 Seconds)

Which Noble gas can form three different binary compounds with fluorine and two different binary compounds with oxygen? Sometimes used in bubble chambers, its molar mass is between that of Krypton and Radon. Name this element abbreviated Xe.

ANSWER: Xenon

18. Calculus/Math History (30 Seconds)

Find the limit, as x approaches 2, of the fraction with numerator $2x^2+5x-18$ and denominator $x^2+10x-24$.

ANSWER: 13/14

19. Art/Architecture

Which impressive ancient display was built to please a homesick wife? Created in the sixth century BC, it was irrigated by water pumped from the Euphrates River, and it was built by King Nebuchadnezzar.

ANSWER: Hanging Gardens (of Babylon) (or Hanging Gardens of Nebuchadnezzar)

20. Nonfiction

Which eighteenth and nineteenth century British economist wrote “An inquiry into the Nature and Progress of Rent”? He is most famous for his “Essay on Population”, which argued that the world population would eventually overrun its supply.

ANSWER: (Thomas Robert) Malthus

NOTE: These questions are for breaking ties. If you need to replace a question, use the corresponding question from the Replacement packet. In a tiebreaker, the first correct answer wins the match.

Tiebreaker #1 (30 Seconds)

Find the height of a rectangular prism if its length and width are each 2 centimeters and its great diagonal is 3 centimeters.

ANSWER: 1 centimeter

Tiebreaker #2

Carvings of these creatures usually stand outside ancient temples. They were peaceful except when the pharaoh was threatened. Identify these creatures with the head of a man and body of a lion.

ANSWER: Sphinx(es)

Tiebreaker #3

Which state uses the postal abbreviation IA?

ANSWER: Iowa

