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1.1

MULTIPLE CHOICE

1. Evangelista Torricelli was the pupil of which famous scientist and astronomer?
- a. Galileo Galilei
 - b. Nicolas Copernicus
 - c. Michaelangelo
 - d. Johannes Kepler

ANS: A

Galileo Galilei taught Torricelli, who in turn contacted Gasparo Berti about solving the problem of pumping water.

PTS: 1

2. Torricelli tried repeating Berti's experiment with what substance?
- a. Gold
 - b. Oxygen
 - c. Lead
 - d. Mercury

ANS: D

Torricelli tried to repeat Berti's work with mercury.

3. What religion's leadership did Torricelli and Berti irk with their findings on vacuums?
- a. Protestant Christianity
 - b. Islam
 - c. Catholicism
 - d. Orthodox Judaism

ANS: C

The Catholic Church believed that empty space was filled by God, forcing Torricelli and Berti's experiments to later be performed in Protestant countries.

4. James P. Epsy was a researcher affiliated with what institute?
- a. The Weizmann Institute
 - b. The Franklin Institute
 - c. MIT
 - d. English Royal Society

ANS: B

Epsy was affiliated with the Franklin Institute in Philadelphia, named after Benjamin Franklin and located in the city with which he is commonly associated.

5. James P. Epsy deduced that storms were what shape thanks to his research along the Atlantic Coast?
- a. Round or oblong
 - b. Square or rectangular
 - c. Triangular and obtuse
 - d. Round and obtuse

ANS: A

Epsy concluded from his study of thousands of weather reports along the American east coast that storms were round or oblong.

6. The Meteorological Office set up how many stations in the British Isles?
- a. 12
 - b. 15
 - c. 16
 - d. 27

ANS: B

The Meteorological Office established 15 stations around the British Isles and regularly communicated with Paris to receive telegraphed weather reports.

7. What piece of infrastructure was built in London in response to three outbreaks of cholera?
- a. Telegraph lines to report outbreaks
 - b. Ports to quarantine the sick
 - c. Sewers to get rid of waste water
 - d. Ports to bring in more shipments of medicine

ANS: C

Sewers were built to clean up England following three outbreaks of cholera between 1831 and 1866 that caused the death rate by starvation or disease to rise by a third and left England on the verge of anarchy.

8. Otto von Guericke was the mayor of what German city in what year when he designed an air pump?
- a. Magdeburg in 1698
 - b. Munich in 1698
 - c. Magdeburg in 1654
 - d. Munich in 1654

ANS: C

Otto von Guericke was mayor of Magdeburg in 1654 when he designed his air pump.

9. Which 19th century personality is credited with building technology that used an alternating current?
- a. Nikola Tesla
 - b. Alexander Graham Bell
 - c. Benjamin Franklin
 - d. Thomas Edison

ANS: A

Nikola Tesla is credited with building electrical systems that used alternating current.

10. When did America transition from a pre-industrial society into the industrial age?
- a. In 1776
 - b. In 1812
 - c. Before the Revolution
 - d. After the Civil War

ANS: D

According to Ruth Schwartz Cown America began to transition into the industrial age after the Civil War.

PTS: 1

11. When was the first telegraph line built?
- a. 1786
 - b. 1820
 - c. 1843
 - d. 1876

ANS: C

Morse and his partners built the first telegraph line in 1843.

PTS: 1

12. Who established America's time zones?
- a. Congress
 - b. The President
 - c. Railroad companies
 - d. Banks

ANS: C

At noon on 1883 railroad signalmen coordinated their watches across the country by agreement among the managers of the nation's railroads.

PTS: 1

13. Who patented the telephone?
- a. Bell
 - b. Morse
 - c. Rockefeller
 - d. Morgan

ANS: A

Alexander Graham Bell patented the telephone in 1876.

PTS: 1

14. How many motors were in factories by 1901?
- a. Almost 200, 000
 - b. Almost 400,000
 - c. Almost 500, 000
 - d. Over 700, 000

ANS: B

By 1901 almost 400, 000 motors had been installed in factories with a capacity of almost 5 million horsepower.

PTS: 1

15. What was the dominant form of lighting by 1920?
- a. Gas
 - b. Kerosene
 - c. Electricity
 - d. Oil

ANS: C

By 1920 electricity had supplanted gas, kerosene, and oils for lighting.

PTS: 1

16. What did congestion bring in its wake?
- a. Health
 - b. Disease
 - c. Automobiles
 - d. The powergrid

ANS: B

Congestion brought disease; all C19th American cities were periodically struck by epidemics.

PTS: 1

17. When did the American population triple?
- a. Between 1840 and 1860
 - b. Between 1850 and 1880
 - c. Between 1860 and 1920
 - d. Between 1880 and 1940

ANS: C

The American population tripled between 1860 and 1920.

PTS: 1

18. When were the Immigration Restriction Acts passed?
- a. 1886
 - b. 1924
 - c. 1928
 - d. 1931

ANS: B

The Immigration Restriction Acts were passed in 1924.

PTS: 1

19. What was the key machine in Mahatma Ghandi's ideal world?
- a. The clock
 - b. The sewing machine
 - c. The spindle machine
 - d. The spinning wheel

ANS: D

The spinning wheel was the key machine in Ghandi's ideal world.

PTS: 1

20. What is the largest corporation in the world at the start of the twenty-first century?
- a. Ford
 - b. Wal-Mart
 - c. General Electric
 - d. Nokia

ANS: B

Wal-Mart is the largest corporation in the world at the start of the twenty-first century, both by annual sales and employee numbers.

PTS: 1