Tossups

1. Also called Mariotte's Law, this law can be derived from the kinetic theory of gases assuming that a gas exists under ideal conditions. This law was the first of the three parts of the Combined Gas Law to be discovered, in 1662, and it is the only one that demonstrates an inverse relationship between its two variables. FTP, identify this gas law, which explains the relationship between the volume and pressure of a gas.

Answer: Boyle's Law

2. Surprisingly, this U.S. President was the first to be born in a hospital. He caused a stir by walking from the Capitol Building to the White House after his inauguration, showing his determination to remain close to ordinary people. FTP, identify this President, perhaps most famous for a peace treaty he arranged at Camp David in 1978.

Answer: James Earl (Jimmy) Carter

3. After his father is murdered, the title character chases the killer, John Bly, a man from the future who has traveled through time with the help of two orbs. Aided by Bowler and Socrates, the hero of the show chases Bly all over the Old West. For ten points, name this often-humorously show starring Bruce Campbell, which appeared for only one season on Fox as the original lead-in to The X-Files.

Answer: The Adventures of Brisco County Jr.

4. Names for this group of people include Inupiat, Yupik, and Alutiit, which all translate to "the people" in their regional tongue, though their more familiar name means eaters of raw fish. They are distinguished from other Asiatic aborigines by their small hands and feet, and they suffer from several cultural disorders related to the stress of living in arctic regions. FTP, name these people, also called the Inuit.

Answer: Eskimos (accept Inuit on early buzz)

5. Math question. FTP, solve the following linear system. 3x + 6y = 3, and 2x - 3y = 16.

Answer: x = 5, y = -2

6. It was written in the 5th century AD in response to the pagan philosopher Volusianus contention that Emperor Constantineis adoption of Christianity led to the sack of Rome by the Visigoths in 410. Its famous motif concerns the dichotomy of pagan Babylon and Christian Rome. FTP, name this treatise written by St. Augustine.

Answer: The City of God

7. Military leader Gaspard de Coligny had succeeded in winning the confidence of young King Charles IX, but Queen Mother Catherine De Medici worried about Colignyis growing power and organized an assassination plot which failed. Catherine, fearful that her role would be exposed, ordered the extermination of leading French Huguenots. FTP, name this 1572 atrocity, named for the day on which it occurred.

Answer: St. Bartholomew's Day Massacre
8. This condition, because a certain substance is lacking in brain tissue, is characterized by nystagmus or oscillation of the eyeballs. Because of a lack of the enzyme tyrosinase, the formation of melanin does not take place. FTP, what is this condition which results in pink-looking eyes, white or yellow hair, and light skin because of a lack of normal pigmentation?
Answer: _albinism_ (accept albino)

9. Passed nearly unanimously and approved on March 9th, 1933, this Act of Congress kicked off the Hundred Days and, with it, the New Deal. It provided penalties against gold hoarding and export as well as granting the President broad powers over the fiscal state of the Union. FTP, identify this act which enhanced the Power of the Federal Reserve Board and help steady the shaky U.S. banking market.
Answer: _Emergency Banking_ Act

10. During the political struggles in Italy, this writer supported the Guelphs in their struggle against the Ghibellines, and he married a member of the Guelph family, Gemma Donati. His first work, _La vita nuova_, was written not long after the 1290 death of his great love, who was not his wife but a noblewoman of the Portinari family named Beatrice. FTP, name this author who glorified Beatrice in his Divine Comedy.
Answer: _Dante_ Alighieri

11. He received 20,000 francs from Paganini and was inspired to compose Harold in Italy. Another time, he decided he wanted to compose a Hungarian March, so he had the title character go to Hungary for that reason only in The Damnation of Faust. FTP, name this French Romantic who is best known for expressing his love for the Irish actress Harriet Smithson by composing the Symphonie Fantastique.
Answer: Hector Berlioz

12. Discovered by the Spanish in 1535, this area sheltered buccaneers and whalers until 1832, when it was annexed by Ecuador. Increasing numbers of settlers and tourists threaten to destroy the area's ecological balance, for which it is most famous. FTP, give the common name of the Archipelago de Colon, immortalized by Charles Darwin's exploration.
Answer: Galapagos Islands

13. According to the Enuma Elish, he was a god of thunderbolts who defeated the dragons of chaos and thus gained supreme power. He gained so many titles thereafter that he was simply called "Baal," which means "Lord." FTP who is this mythological deity, head of the Babylonian pantheon.
Answer: _Marduk_ (prompt on iBaal before it is read)

14. She wrote an autobiographical sketch entitled _Religious Experiences, Meditations, Divine and Moral_. Born an aristocrat, she was the daughter of one governor and wife of another governor of the Massachusetts Bay Colony. FTP name this American poet, most famous for her poetry collection, _The Tenth Muse Lately Sprung Up in America_.
Answer: Anne Bradstreet

15. As a hobby during his astronomy professorship, he designed Cambridge's Pembroke College Chapel. This amateur career took off under the tutelage of Inigo Jones, and he left for France to study with the prestigious Italian architect Gianlorenzo Bernini. FTP, name the man who, upon his return to England in 1666, rebuilt the burnt St. Paul's Cathedral and supervised the restoration of London.
Answer: Sir Christopher Wren

16. The video for her most recent single has 3 different versions, one of which is a play on VH-1's Pop Up Video. This native of Goodlettsville, TN was the winner of the 1997 CMA Award for Single of the Year, which she accepted in her bare feet. FTP, identify this country music star, best known for her hit songs We Danced Anyway, Strawberry Wine and Did I Shave My Legs For This?
Answer: Deana Carter

17. Its Supreme People's Assembly is the world's longest currently sitting parliament because further elections have been postponed due to the death of the Supreme Leader. Though professing to be a democratic republic, all power is actually vested in the Worker's Party and its leader. FTP, identify this
country, whose de facto leader since 1994 has been Kim Jong-Il.
Answer: _North Korea_ or Democratic People's Republic of Korea

18. It was first determined in the wake of Michael Harrington's 1962 book _The Other America_. The conditions described in the book shocked many Americans, including Lyndon Johnson. Soon afterward, this value was determined, and social programs were started to try to get all Americans above it by 1976. For ten points, name this divider, which was at $3,000 in 1964 but has risen to over $15,600 for a family of four in the mid-1990s.
Answer: _Poverty Line_

19. After working for the Alabama Power Company, he went to Paris, where the lectures of Marie Curie turned his interests to atomic physics. He determined there was a need to produce a source of energetic sub-atomic particles, so he devised a machine consisting of a moving belt that conveyed a charge into a spherical shell where high potentials could be created. FTP, identify this inventor known for his generator.
Answer: Robert Van de Graaff

20. He was prevented from practicing medicine by a temporary blindness, and later in life he spent time studying the occult in Hollywood with the Ramakrishna Mission. His early novels, such as _Antic Hay_ and _Point Counter Point_, are witty depictions of 1920s society. His most famous novel, a science fiction work, expresses his concerns about scientific progress. FTP, name this British author of _Brave New World_.
Answer: Aldous Huxley

21. This metal lies well above hydrogen on the electrochemical series because of its lack of reactivity. This group IB transition metal exists as a tetracoordinate complex with chloride ions in a solution of aqua regia. FTP, name this element which has atomic mass 197 and atomic number 79, the most malleable and ductile of all metals.
Answer: Gold

22. First organized as an official group devoted to general ideals in 1717, this group reached America in the 1730s. They adhere to a liberal philosophy of religious toleration, keep a vow of secrecy, and have been opposed by the Catholic Church and an American political party. For ten points, name this largest fraternal order in the world, whose branches are called lodges.
Answer: Free masons (accept Free masonry)
Bonuses

1. For the stated number of points, given a detective, name the author who created him.
   A. For 5 points, Sherlock Holmes.
      ANSWER: Arthur Conan Doyle
   B. FTP, Philip Marlowe.
      ANSWER: Raymond Chandler
   C. For 15 points, Easy Rawlins.
      ANSWER: Walter Mosley

2. Identify the following from astronomy and astrophysics FTP each.
   A. These dark, cooler patches on the photosphere of a star such as our own are associated with changing
      magnetic fields.
      Answer: _sunspots_
   B. The name given to blue, star-like objects which are strong radio emitters and exhibit much red shift in
      their spectra.
      Answer: _quasars_
   C. This is the name given to a steady stream of particles flowing out of a star's corona.
      Answer: _solar wind_ (accept _stellar wind_)

3. FTP each, identify the Constitutional amendment based on a description
   A. This Reconstruction amendment forces states to grant citizens "equal protection" under the law, and the
      rights of citizens cannot be taken away without "due process of law."
      --Answer: _14th_
   B. This amendment states that the right of citizens to vote in a national election cannot be denied because
      of people's inability to pay a poll tax.
      --Answer: _24th_
   C. According to this amendment, "the Judicial power of the United States...shall not be...prosecuted
      against one" of the states by "Citizens of another State."
      --Answer: _11th_

4. Name the following creatures or races from J. R. R. Tolkienis The Lord of the Rings for the stated
   number of points.
   A. 5 points: Bilbo and Frodo Baggins are heroic examples of this small, usually timid race of people, the
      title race of another Tolkien book.
      Answer: _hobbits_
   B. 10 points: Members of this evil, brutish race are responsible for killing Boromir and make up the bulk
      of Sauron's army.
      _orcs_ (accept _goblins_)
   C. 15 points: One of these creatures, dark and consumed by fire, kills Gandalf in the mines of Moria.
      Answer: a _balrog_
5. Identify these pioneers in the study of animal behavior FTP each.
   a) This American psychologist was famous for his "box.
      Answer: B._F. (Berháck) _Skinner_
   b) This founder of ethology, famous for his imprinting experiments, shared the 1973 Nobel Prize for
      physiology with Niko Tinbergen.
      Answer: Konrad _Lorenz_
   c) Her studies of the Mountain Gorillas in Rwanda came to a tragic end when she was mysteriously
      murdered.
      Answer: Diane _Fossey_

6. Name the politician, 30-20-10.
   30--Exiled by French authorities in 1930, he was arrested and imprisoned on his return to his country.
   20--A leader of the Vietnamese communist party, he entered the organization's governing committee in
   1955.
   10--For his lead role at the Paris conference on Indochina, he was awarded the 1973 Nobel Peace Prize
   with Henry Kissinger.
      Answer: Le Duc _Thọ_

7. The 12 sons of Jacob are the basis of the 12 tribes of Israel, but how much do you know about these
   sons?
   A. For 5 points each, name the 2 sons of Jacob and Rachel.
      Answer: _Joseph_ and _Benjamin_
   B. For 10 points, name the oldest of Jacob's sons.
      Answer: _Reuben_
   C. For an additional 10 points, which son's descendants became Israel's tribe of priests?
      Answer: _Levi_

8. Identify the following works of literature with _heartI_ for 10 points each.
   a. This novel by Carson McCullers deals with the deaf-mute John Singer and those who confide in him.
      ANSWER: _The Heart Is A Lonely Hunter_
   b. This novel by Sir Walter Scott deals with Effie Deans' incarceration at Old Tolbooth prison in
      Edinburgh.
      ANSWER: _The Heart of Midlothian_
   c. This 1902 novella featuring Marlow and Kurtz is the most famous work of Joseph Conrad.
      ANSWER: _Heart of Darkness_

9. Given the next in line for the throne of a nation, name that nation for the stated number of points.
   a. 5 - Charles, Prince of Wales
      ANSWER: United Kingdom (accept equivalents, e.g. Great Britain, England)
   b. 5 - Filipe, Prince of Asturias
      ANSWER: Spain
   c. 10 - Crown Prince Frederick of Oldenburg
      ANSWER: Denmark
   d. 10 - Crown Prince Phillipe of Saxe-Coburg
      ANSWER: Belgium
10. Identify the musical instruments from a description FTP each.

A. Ambrose Bierce described it as an instrument to tickle human ears by friction of a horse's tail on the entrails of a cat.
Answer: _fiddle_ (prompt on violin)

B. Aristotle said that this woodwind was not an instrument that has a good moral effect: it is too exciting.
Answer: _flute_

C. It originated as a Roman military trumpet, but this brass instrument was compared by virtuoso Gerard Hoffnung to a live elephant.
Answer: _tuba_

11. Identify the semi-divine characters from Greek myth based on a description for the given amount of points.

A. 5--This Titan angered the gods by stealing fire, and they punished him by attaching him to a mountain side to have his liver eaten by vultures each day.
Answer: _Prometheus_

B. 10--After Cupid shot Apollo with an arrow of desire, he pursued this nymph only to be rejected by her. At her request, her father, a river god, turned her into a laurel tree.
Answer: _Daphne_

C. 15--A son of Prometheus, he and his wife Pyrrha survived the flood caused by the gods and restored the human race by throwing stones over their shoulders.
Answer: _Deucalion_

12. Identify the city from clues on a fifteen-five point basis.

15) The commercial core of this city is known as the Triangle. Among its most distinctive architectural features is the SI-shaped Copan Building, but such wonders are not to be found in the slum town of Bras.
Answer: _São Paulo_

5) It is the most populous city in Brazil.

15) Independent since 1965, it consists of one large island and fifty smaller islets. Originally named Temasek, perhaps the most prominent architectural feature of this city is the Empress Palace.

5) This Southeast Asian Tiger is home to nearly 3.4 million inhabitants.
Answer: _Singapore_

13. a) For ten points, what term is given to any suspension in which smaller particles are dispersed permanently throughout a solvent?
Answer: _colloid_ (accept _colloidal suspension_ or _colloidal dispersion_, do NOT accept emulsion)

b) foam, whipped cream
Answer: _gas dispersed in liquid_

c) emulsion, mayonnaise
Answer: _liquid dispersed in liquid_

14. Answer the following questions about Charles Dickens' Great Expectations for the stated number of points.

A. 5) This is the nickname of Philip Pirrip, the main character.
Answer: _Pip_

B. 10) This is the eccentric old recluse who brings Estella up to hate men.
Answer: Miss _Havisham_

C. 15) This is the decaying mansion where Miss Havisham lives.
Answer: _Satis House_
15. Identify these sports bad boys for ten points apiece.
a) This former Steelers and Ravens running back has been suspended from the league and released by his teams due to multiple drug charges.
Answer: Bam Morris
b) This talented runner has been in trouble ever since he was a sophomore at Nebraska. Dolphins coach Jimmy Johnson has decided to give him another chance.
Answer: Lawrence Phillips
c) According to Newsweek, this NBA forward leads the league in bar altercations. Recently he was accused of throwing a man through a plate glass window.
Answer: Charles Barkley

16. Pencil and paper may be necessary. Answer the following for 15 points each about a hydraulic press with a narrow bore cylinder with a cross-sectional area of $4\pi$ square centimeters and a large bore cylinder of cross-sectional area $9\pi$ square centimeters.
A. What mass must be applied to the small bore to raise a mass of 49.5 kg on the large bore?
   Answer: 22 kg
B. If the 22 kg mass is forced down on the small bore 58.5 cm, how far is the 49.5 kg mass over the large bore raised?
   Answer: 26 cm

17. Identify the sitting U.S. President when each of the following events occurred FTP each.
   a. The Panama Canal is completed
   Answer: Woodrow Wilson
   b. Dien Bien Phu falls to the Communist forces in Vietnam
   Answer: Dwight D. Eisenhower
   c. Napoleon is defeated at Waterloo
   Answer: James Madison

18. Given a Greek member of the Pantheon, identify his or her Roman counterpart FTPE.
   A. Cronus
   Answer: Saturn
   B. Demeter
   Answer: Ceres
   C. Athena
   Answer: Minerva

19. Identify the painters of the following Impressionist works FTPE.
   A. Prima Ballerina
   Answer: Edgar Degas
   B. Le Moulin De La Gallette
   Answer: Pierre Auguste Renoir
   C. Impression: Sunrise
   Answer: Claude Monet

20. Answer the following questions about blood transfusion for ten points apiece.
   a) French physician Jean Baptiste Denis was the first person to transfuse blood in his experiment, from a sheep to a human. In what century did this experiment occur?
   Answer: 17th century (accept 1600 is or other equivalents)
   b) Albumin solution, a common type of blood used for transfusion, is heat treated to destroy what viral contagion researched by Trudy Elion?
   Answer: viral hepatitis
   c) Flousol-DA, used as a blood substitute for patients whose religious beliefs do not permit transfusion, is created by the fluorination of what very general class of organic compound?
   Answer: hydrocarbon