Tossups

1. **This man published a 2014 study in *The Lancet* suggesting type-2 diabetes is caused by anti-oxidants. This scientist wrote a racist memoir titled *Avoid Boring People*. This American was first author on a *Nature* paper which claims that "a possible copying mechanism" "has not escaped our notice", and gives a theoretical backing for Chargaff's rules. Francis Collins succeeded this scientist as director of the** (*) Human Genome Project. He was criticized for stealing Rosalind Franklin's diffraction patterns. He won a Nobel along with Maurice Wilkins and a British colleague. For 10 points, name this author of *The Double Helix*, the partner of Francis Crick.
ANSWER: James Dewey **Watson**

2. **This man dreams about a beast with ten horns, which grows another horn that speaks. He solves a classic locked-room mystery by discovering that priests are eating a meal left out to a false god. This man describes a statue made of clay, iron, bronze, silver and gold. He interprets the message** (*) *Mene Mene Teqel Upharsin*, [men-AY men-AY TEK-el oop-har-SEEN] which was written by disembodied fingers on the wall at a feast. This man interprets a vision of a huge tree being cut down to mean that the king will go mad for seven years and eat grass like an ox. His companions survive being thrown into a furnace by Nebuchadnezzar. For 10 points, name this Biblical prophet who gets thrown in a lion's den.
ANSWER: **Daniel**

3. **In 2015, a US ambassador called this leader's crackdown on Ford and Greenpeace "chilling." On a state visit to Shanghai in May 2015, this person declared a "plus one" friendship with Xi** [SHEE] **Jinping. He was blamed for an attack at the Gulbarg Society, after 58 pilgrims perished on a burning train. Until 2012, this leader was denied a US visa, but he made a speech to 19,000** (*) adoring fans at Madison Square Garden in September 2014. This man is often incriminated for the massacre of thousands of Muslims in 2002. His nationalist BJP party squashed the Congress Party in 2014. For 10 points, name this prime minister of India.
ANSWER: Narendra **Modi** [or **Namo**; or **Nemo**]

4. **In a story by this author, Ms. Spence accuses Mr. Hutton of poisoning his wife, but really the criminal was Doris, Hutton's mistress. This author of "The Gioconda Smile" wrote about Will Farnaby in the novel *Island*. Characters created by this author sing, "Orgy-porgy gives release" at a** (*) Solidarity Service. This author took a lot of mescaline to write *The Doors of Perception*. This author described a society divided into Alphas and Epsilons, where years are dated After Ford, and where everybody except John the Savage takes a lot of soma, in a dystopian novel. For 10 points, name this author of *Brave New World*.
ANSWER: Aldous **Huxley**

5. **Francis I shouted "Show me Adam's will!" to dispute claims made by these two countries. The *Aeterni regis* [ay-TARE-nee RAY-jus] and *Inter caetera* bulls granted land to these two countries. These two countries signed the Treaty of Zaragoza after they both claimed the Moluccas and then argued about how anti-meridians work. The Almoravid [all-MORE-uh-vid] dynasty was in these two** (*) European countries. The first circumnavigation was conducted by a man from one of these countries who sailed for the other. Their New World territory was split along a line of longitude by the Treaty of Tordesillas [tore-duh-SEE-us]. For 10 points, name these countries who claimed, respectively, Brazil, and the rest of South America.
ANSWER: Kingdom of **Spain** and Kingdom of **Portugal** [either order acceptable; accept **Espana** and Reino **Portuguesa**]

6. **A variant of this painting made by Paul Baudry shows a woman in a blue dress illuminated by light. Pentangeli's death in _The Godfather Part II_ vividly mimics this painting. A naked woman stares directly at the viewer in Edward Munch's version of it. This painting's artist signed his name on a woodblock placed in front of a green rug. Its central figure holds a piece of** (*) paper in his left hand and a quill in his right. Though this painting does not depict Charlotte Corday, the title character is bleeding from her knife wound. For 10 points, name this painting set in the bathtub of an assassinated French revolutionary, made by Jacques-Louis David.
ANSWER: The **_Death of Marat_** [or La **_Mort de Marat_**; or **_Marat Assassiné_**]

7. **Bela Karlovitz used magneto-hydro-dynamic theory to invent one of these devices. Faraday invented consisting of a rotating flywheel. A type of these devices relies on conductive brushes rubbing against the conducting armature on a mechanical commutator. Magnetos are used for this purpose. A hollow metal globe in which static charges** (*) accumulate due to friction is one of these devices. These devices in electrical circuits are usually either dynamos or alternators, depending on if the result is alternating or direct. For 10 points, name these devices, exemplified by an object named for van de Graaff, which create electrical currents.
ANSWER: electrical **generator**s [or van de Graaff **generator**s; prompt on **dynamo**s; prompt on **alternator**s]

8. **A civilization centered around this river invented rammed-earth walls and developed advanced black and gray pottery. This river's valley was home to a civilization that wrote a book about every permutation of three broken-or-whole horizontal lines. _The Records of the Grand_ (*) _Historian_ describe early civilizations on** this river. A civilization on this river wrote on tortoise shells, and performed divination using oracle bones. Flooding of this river led to many sorrows, but also permitted human settlement because of the fertile loess-rich soil. For 10 points, name this river, around which the Chinese civilization developed.
ANSWER: **Yellow** River [or the **Huang** He]

9. **This character raises her knee while serving in a "perfect imitation of top-notch tennis." The foreword of the novel explains that this character dies in childbirth on Christmas Day, 1952. She writes a note to her dad explaining her move to Alaska with husband Dick Schiller. A mysterious Aztec red convertible follows this character. She is pulled out of Camp** (*) Q to be told that her mother was run over in a freak car accident. Clare Quilty abducts this character, who is called the "light of my life, fire of my loins" in the first sentence of the novel. For 10 points, name this nymphet loved by Humbert Humbert in a Vladimir Nabokov novel.
ANSWER: **Lolita** [or **Dolores** Haze; or **Dolly** Haze; or **Lo**; prompt on **Haze**]

10. **Aaron Paul yelled "YOU'RE MY IDOL" to this man on a television appearance in 2000. In a film, this man cameos as a participant in the Pepsi Pro-Am. This man frequently told audiences, "Help control the pet population. Have your pets spayed or neutered." This man appeared as himself on the _How I Met Your Mother_ episode** (*) "Showdown," when Barney Stinson still believes that this man is his father. This man kicks Happy Gilmore in the face at a golf tournament. In 2007, Drew Carrey took over this man's job of shouting "Come on down!" to people on Contestants' Row. For 10 points, name this longtime host of _The Price is Right_.
ANSWER: Bob **Barker**

11. **Thelonious Monk recorded a live album at the New York "Spot" cafe named for this word. This is the second word in the title of the song after "Strange Meadow Lark" on the album _Time Out_. "Flamenco Sketches," the track of this number, is the last track on _Kind of Blue_. Miles Davis had two "Great" bands with this many members. Paul Desmond wrote a song titled for this number for the** (*) Dave Brubeck Quartet, so-named for its unusual time signature. Adding a beat to common time gives this many beats a measure. For 10 points, name this number which makes up a jazz group of 2 wind players and the piano, bass, and drums section.
ANSWER: **five** [or "**Take Five**"; or the **Five** Spot Cafe; accept either Miles Davis' First Great **Quintet** or Miles Davis' Second Great **Quintet**]

12. **This white man founded the National Negro Business League with Booker T. Washington. He founded a think-tank dedicated to the Endowment for International Peace. In an article for the "North American Review," this man proposed that surpluses should be redistributed to reduce the income gap, arguing the rich have a moral obligation to obey the** (*) "Gospel of Wealth." He funded namesake libraries in Pittsburgh. This man supported Henry Clay Frick and the Pinkertons during the Homestead strike at one of his plants. JP Morgan bought out this industrialist to form US Steel. For 10 points, name this Scottish steel magnate and philanthropist.
ANSWER: Andrew **Carnegie**

13. **This quantity is defined as the product of mole fraction times fugacity coefficient times pressure, raised to the variable nu. The extent of reaction depends on starting concentrations and this quantity. Its temperature dependence is related to the exponential of negative enthalpy in the van't Hoff equation. The change in** (*) Gibbs energy in a reaction equals negative RT times the log of this quantity. The law of mass action sets it equal to a ratio of concentrations. By Le Chatelier's principle, a reaction shifts left if Q is greater than this value. For 10 points, name this constant symbolized K which represents a reaction that goes in two directions.
ANSWER: **equilibrium** constant [or **K** until it is read]

14. **A poem by this author gave EM Forster the title "A Passage to India." A collection by this author originally contained twelve poems but was updated into a final "deathbed edition." This author's "Calamus" poems are the most overt proof of his homosexuality. This author's experience nursing wounds during the** (*) Civil War inspired his collection *Drum-Taps*. He wrote about a "powerful, western, fallen star" and mentioned that "our fearful trip is won" in two poems memorializing Abraham Lincoln. For 10 points, name this author of "Song of Myself" and "O Captain, My Captain", two poems from *Leaves of Grass*.
ANSWER: Walt **Whitman**

15. **This inventor of the index card fixed the Celsius thermometer by making 0 degrees the melting point of water. This man divided humanity into four races depending on skin color. He had seventeen students called his "apostles" at Üppsala, who travelled around the world to take plant samples for his enormous collection. This author of *Systema Naturae*** (*) classified plants based on how many stamens and how many pistils they have. Cladistics was an upgrade to this man's classification system. He popularized binomial nomenclature. For 10 points, name this Swedish botanist who invented the kingdom-phylum system of taxonomy.
ANSWER: Carolus **Linnaeus** [or Carl **Linnaeus**]

16. **The Danaides chose their *second* husbands based on their skill at this task. Icarius promised Penelope to the only suitor who could beat him at this task, which Odysseus won. Poor performers at this task were beheaded at King Iasus' court. Aphrodite turned two exceptionally good competitors in this sport into** (*) lions after they forgot a sacrifice. The first person to wound the Calydonian boar was forced to marry after losing this type of competition, when Hippomenes distracted her with three golden apples. For 10 points, name this sport practiced by Atalanta, which was legendarily done by Pheidippides [fee-uh-DIP-uh-dees] after the Battle of Marathon.
ANSWER: **run**ning [or a foot**race**; or obvious equivalents; do not accept or prompt on "chariot racing" or similar answers]

17. **Newton's recurrence relation estimates this function of n. The coefficient of the normal distribution PDF is one over this function of two pi. The derivative of this function of x equals one half times one over this function of x. The Babylonian method is a way to approximate it. The geometric** (*) mean equals this function of the product of two numbers. This function is applied to the discriminant in the quadratic formula. Its graph exists only in the first quadrant. x to the one-half power is this function of x. For 10 points, name this function which returns i when applied to negative one, or 3 when applied to 9.
ANSWER: **square root** [or **one-half power**; or equivalents; prompt on **root**]

18. **The protagonist of this story is recognized because he wrote a book about snow leopards. After it is decided that one character will "furnish a repast for the hounds", the narrator of this story reflects that he has never slept in a better bed. This story's protagonist constructs a Burmese tiger pit and a Malay man-catcher, impales Ivan with a knife, then jumps off a cliff from** (*) Ship-Trap Island and sneaks back into the chateau. After he falls off a yacht, Rainsford plays a game of cat-and-mouse with General Zaroff in this story. For 10 points, name this frequently anthologized story by Richard Connell, whose title refers to hunting men.
ANSWER: "The **Most Dangerous Game**"

19. **This composer wrote an important F minor concerto for tuba. He wrote an overture where trills represent the title animals, part of his incidental music to *The Wasps*. This composer adapted his own film score to *Scott of the Antarctic* for his seventh symphony. He also wrote symphonies named for a sea, and for (*)** London. This composer used the song "Why Fum'eth in Fight" for a string orchestra fantasia on the music of the composer of *Spem in alium*. He also wrote a fantasia on the folksong "Greensleeves." For 10 points, name this English composer of *The Lark Ascending* and "Fantasia on a Theme of Thomas Tallis."
ANSWER: Ralph ("rafe") **Vaughan Williams**

20. **A construction company named for this family contracted the Kingdom Tower, which will be the tallest building in the world when finished. A member of this family created the MAK, which sided with the *mujahideen* [moo-haw-hid-EEN] during the Soviet-Afghan War. The Kean-Hamilton "Commission" report denied allegations that this family was jettisoned out of a closed US (*)** airspace. King Faisal [FYE-sawl] was bankrolled by a patriarch of this family. A member of this family planned the Nairobi embassy bombings with Ayman al-Zawahiri. This wealthy Saudi family included the founder of al-Qaeda. For 10 points, name this family which included Osama.
ANSWER: **bin Laden** family [prompt on **Laden**; accept **Osama bin Laden**]

TB: **Bedaquiline** [bed-ACK-will-een] **treats this disease. The pathogen that causes this disease has a high concentration of mycolic acid, so an acid-fast stain is used instead of a Gram stain. The BCG vaccine inoculates against this disease. This infection is the leading cause of death for sufferers of AIDS. It is diagnosed by injecting a protein into the (*)** skin, waiting two days, then measuring the size of the red bump. This disease, which is caused by a mycobacterium, is spread through aerosolized droplets and often leads to a bloody cough. For 10 points, name this extremely contagious respiratory disease once called consumption.
ANSWER: **tuberculosis** [or **TB**]

Bonuses

1. This fairly strong base and good reducing agent has a ridiculously low TLV of 0.1 ppm. For 10 points each:
[10] Name this extremely toxic compound which has chemical formula N_2H_4.
ANSWER: **hydrazine**
[10] As a result, if you're using hydrazine, you should definitely do it inside one of these devices, which circulate safe air underneath a moveable sash. Most lab work with dangerous vapors is done inside one.
ANSWER: fume **hood** [or a **fume cupboard**; or a laminar flow **cabinet**; prompt on partial answer]
[10] In organic chemistry, hydrazine reacts with this functional group to form a hydrazone. This functional group, found in ketones and aldehydes, consists of a carbon double bonded to an oxygen.
ANSWER: **carbonyl** group

2. Answer the following about the human-ish-looking avatars of Vishnu, for 10 points each:
[10] The most well-loved of the avatars is this blue-skinned god often shown as a young boy playing his flute.
ANSWER: **Krishna**
[10] The Bhakti movement reveres both Krishna and this other Vishnu avatar. In a Hindu epic, this man rescued his wife, who was captured by a demon, while they were spending fourteen years in exile.
ANSWER: **Rama**
[10] Many lists include this person as the ninth avatar of Vishnu, although he is sometimes replaced by Balarama instead. This man disagreed with the teachings in the Vedas and introduced *ahimsa* to Hinduism.
ANSWER: Avatara **Buddha** [or **Siddhartha** **Gautama**; there is debate as to whether or not they *are* the same Buddha, but accept either answer regardless]

3. The solo from this work and its composer's solo piece *Syrinx* are common orchestral flute excerpts. For 10 points each:
[10] Name this piece based on a Stéphane Mallarmé poem about a mythological creature. Its opening flute solo descends chromatically to the tritone below the starting C-sharp.
ANSWER: *Prelude to the Afternoon of a Faun* [or *Prélude à l'après-midi d'un faune*]
[10] *Prelude to the Afternoon of a Faun* is a symphonic poem by this French composer of *La Mer* and "Clair de Lune."
ANSWER: Claude **Debussy**
[10] *La Mer* is one of the many Debussy compositions based on this type of scale. This scale type, which omits two notes from the diatonic scale, can be played using the black keys of a piano.
ANSWER: **pentatonic** scale [accept more specific answers like **hemitonic pentatonic** scale and **antihemitonic pentatonic** scale]

4. For 10 points each, answer the following about 19th century American financial crises:
[10] Some critics blame this president for the Panic of 1837, because he vetoed the bill to recharter the Second Bank of the United States. He was succeeded in office by Martin van Buren.
ANSWER: Andrew **Jackson**
[10] Many of these companies became bankrupt during the Panic of 1873 due to overextension. A major expansion of this industry was marked with the Golden Spike at Promontory Point, Utah.
ANSWER: **railway** [or **railroad**]
[10] The Panic of 1857 was brought on by the fall of the Life Insurance and Trust Company in Ohio, a state where 9 of these state banks were located. Jackson used these banks for government money, leading to the Panic of 1837.
ANSWER: "**pet** banks" [do not accept "wildcat banks"]

5. This poem's speaker laments, "My sight searches for her as though to go to her/My heart looks for her, and she is not with me." For 10 points each:
[10] Name this poem, whose title in the first line is followed by the example, "The night is shattered/And the blue stars shiver in the distance." It is the twentieth poem in the collection *Twenty Love Poems and a Song of Despair*.
ANSWER: "**Tonight I Can Write** the Saddest Lines" [or "**Tonight I Can Write**"]
[10] This poet wrote *Twenty Love Poems and a Song of Despair*, as well as the *Canto General*.
ANSWER: Pablo **Neruda** [or Naftali Ricardo **Reyes**]

[10] The title of the eighth section of the *Canto General* declares that the Earth's name is this. A legendary womanizer in Spanish literature is given this name.
ANSWER: **Juan** [or **Don Juan**; or "The Earth's Name is **Juan**"]

6. According to the continuum hypothesis, no set has an intermediate value for this quantity between that of the naturals and the reals. For 10 points each:
[10] Name this value, symbolized with absolute-value lines, which is the number of members of a set.
ANSWER: **cardinality**
[10] If the cardinality of the union of two sets equals the sum of the cardinalities of each set, then the intersection of the two sets must equal this set. This set is symbolized by a zero with a line through it.
ANSWER: **empty** set [prompt on **null** set]
[10] On the other hand, the cardinality of the reals is the same as the cardinality of this subset of the reals, which consists of any number that can be written as a fraction.
ANSWER: **rational** numbers

7. Answer the following about Mount Desert Island, for 10 points each:
[10] The island is part of this national park, which also includes Cadillac Mountain and parts of the Schoodic [SKOO-dick] Peninsula. This park is the oldest national park east of the Mississippi.
ANSWER: **Acadia** National Park
[10] Acadia is in this state, also home to the northern terminus of the Appalachian Trail, and a lot of very good lobster.
ANSWER: **Maine**
[10] This prominent family built several cottages on Mount Desert Island, as well as The Breakers estate in Rhode Island. Asheville, North Carolina is home to a massive estate named for this family.
ANSWER: **Vanderbilt** family [or the **Vanderbilt**s]

8. Answer the following about lock-up periods in the stock market, for 10 points each:
[10] A lock-up period prevents investors from selling any of these objects, the smallest individual units of a company stock that can be purchased.
ANSWER: **share**s of stock
[10] A lock-up occurs in the aftermath of one of these events, in which a company sells stock on an exchange for the first time. Facebook had a disastrous one on May 18, 2012.
ANSWER: **initial public offering** [or **IPO**]
[10] A lock-up period ensures these investment vehicles are illiquid. In these structures, a general manager speculates with plenty of leverage, although, contrary the name, doesn't always take offsetting financial positions.
ANSWER: **hedge fund**s [prompt on **funds**; do not accept or prompt on "mutual funds"]

9. Answer the following about the nonfiction writing of EM Forster, for 10 points each:
[10] Forster defended this author's reputation in an obituary published in *The Nation*. Forster testified at the obscenity trial of Penguin Books for publishing this author's graphic 1928 novel about Connie and Oliver Mellors.
ANSWER: DH **Lawrence** [or David Herbert **Lawrence**; the book is *Lady Chatterley's Lover*]
[10] Forster's literary criticism includes a text titled for the "aspects" of one of these things. Forster's own output in this literary genre includes *A Room with a View* and *Howards End*.
ANSWER: **novel**s [or *Aspects of the **Novel***]
[10] Forster wrote a travelogue "history and guide" to this city, where he was stationed during WWI. Lawrence Durrell wrote a quartet titled for this African city, which was the birthplace of Constantine Cavafy.
ANSWER: **Alexandria**, Egypt

10. Under its king Charles XII, this empire lost the Battle of Poltava to Peter the Great's Russia, ending its reign of power in Europe. For 10 points each:
[10] Name this empire, the most powerful nation in Scandinavia in the early eighteenth century.
ANSWER: **Swedish** Empire [or Kingdom of **Sweden**]
[10] During the 1600s, Sweden was led by this philosophically-minded queen, the daughter of Gustavus Adolphus. Peter Minuit established a fort named for her in the New World.
ANSWER: Queen **Christina**

[10] After losing the Great Northern War, Charles fled to this historical state, where he was extradited by Russia during the Pruth Campaign. This polity allied with France and Britain against Russia during the Crimean War.
ANSWER: **Ottoman** Empire [or the **Ottoman**s]

11. Name some donors to the Clinton foundation, for 10 points each:
[10] Apparently, a donation to the Clinton foundation was enough justification for Hillary to attend this man's 2005 wedding to Melania Knauss. This Republican candidate wants to build a big, beautiful wall to keep out Mexicans.
ANSWER: Donald **Trump**
[10] This Australian right-wing mogul owns News Corps, with holdings like Twentieth Century Fox, *The Times*, and *The Wall Street Journal*, but nevertheless donated extensively to the Clinton foundation.
ANSWER: Rupert **Murdoch**
[10] This ABC news anchor and Clinton donor was criticized in April 2015 for a conflict of interest for holding an interview with *Clinton Cash* author Peter Schweizer and defending the foundation.
ANSWER: George **Stephanopoulos**

12. Answer the following about the body's defense against pathogens, for 10 points each:
[10] Dead cells in the stratum corneum form the outermost layer of this nearly impenetrable barrier for pathogens to enter the body. This structure does not contain any muscles or blood vessels.
ANSWER: **epidermis** [prompt on **skin**]
[10] Cytokines signal for this biological process to occur in an affected area if a pathogen does enter the body. This phenomenon, in which an area turns red and gets larger, occurs in conditions ending with '-itis'.
ANSWER: **inflammation** [or word forms]
[10] The innate immune system relies on this system, in which a pathogen is labelled, then devoured by a phagocytic cell. This system comes in alternative, classic, and lectin forms and relies on the membrane attack complex.
ANSWER: **complement** system

13. Answer the following about pre-classical Greece, for 10 points each:
[10] The Classical Age was immediately preceded by this period, which itself came right after the Dark Ages. This period began in the seventh century BC.
ANSWER: **Archaic** Period
[10] Greek culture abruptly stopped progressing during the "collapse" at the end of this age, which was immediately followed by the Greek Dark Ages. During this age, people everywhere learned how to smelt copper and tin.
ANSWER: **Bronze** Age
[10] Bronze Age Greece consisted mostly of the Cycladic culture, the Minoan culture, and this culture on mainland Greece which had a lot of palaces and spawned much of Greece's mythology.
ANSWER: **Mycenaea**n Greece

14. The title place of this musical is described as a place where "the wavin' wheat can sure smell sweet." For 10 points each:
[10] Name this musical centering on a love triangle between Curly, Jud and Laurey in a Midwestern state. This musical has songs like "Oh What a Beautiful Morning" and "People Will Say We're In Love."
ANSWER: *Oklahoma!*
[10] *Oklahoma!* is a collaboration between Hammerstein and this composer, who he teamed up with on *The Sound of Music* and *South Pacific*. He had previously worked with lyricist Lorenz Hart.
ANSWER: Richard **Rodgers**
[10] In this number from *Oklahoma!*, Curly describes the vessel on which he plans to take Laurey to the box social. The title object of this song is something from which "chicks and ducks and geese better scurry."
ANSWER: "The **Surrey With the Fringe on Top**"

15. William Saroyan wrote a 1943 novel with this title set in Ithaca and loosely based on the *Odyssey*. For 10 points each:
[10] Name this title, which is shared by a realist collection of nearly one hundred novels and short stories by Honoré de Balzac.
ANSWER: The ***Human Comedy*** [or La ***Comedie humaine***]

[10] Balzac's gritty realism sharply contrasted with this then-popular literary movement which emphasized emotions and often included fantastical events. This movement was itself a reaction against the logic of the Enlightenment.
ANSWER: **Romantic**ism [or the **Romantic** Era; prompt on **Gothic** literature]
[10] Balzac turned to naturalism in this novel, one of his last. In this novel, the Baron Hulot poisons Valerie and her second husband and ex-lover Crevel, in a scheme orchestrated by Hulot's distant relative, the title character.
ANSWER: La _**Cousin Bette**_

16. Robert Brout did not win a Nobel Prize for the discovery of this particle since he had passed away just a year before it happened. For 10 points each:
[10] Name this particle discovered on July 4, 2012, at CERN. This "God" boson gives mass to other subatomic particles.
ANSWER: **Higgs** boson
[10] The Higgs boson has a mass of 126 Giga-electron volts, which can be converted to normal units of mass by dividing by this constant. The energy released in fission equals the mass defect times this constant.
ANSWER: **speed of light squared** [or **c squared**; do not accept or prompt on "speed of light" or "c"]
[10] The Higgs boson breaks a symmetry created by this interaction. This interaction, which is the unification of two of the fundamental forces, was proposed by Glashow, Salam, and Weinberg.
ANSWER: **electroweak** interaction [or **electromagnetism** and the **weak** nuclear force]

17. Norman Borlaug, the founder of this movement, is often called the man who saved a billion lives. For 10 points each:
[10] Name this movement, the use of advanced technologies like fertilizers and pesticides to greatly increase crop yields around the world, starting around the 1960s.
ANSWER: **Green Revolution** [prompt on partial answer]
[10] The Rockefeller Foundation sponsored the Green Revolution in this country, finally allowing it to become agriculturally self-sufficient. The US bailed out this country's economy in 1995 after the "December mistake."
ANSWER: **Mexico** [or the United **Mexican** States]
[10] Despite rising availability of food, M. King Hubbert sparked global fears by proposing that supply of this commodity would "peak" soon in the future. The price of this commodity is controlled by cartels like OPEC.
ANSWER: crude **oil** [or **petroleum**]

18. This novella mentions the Song of Family, the Song of Evil, the Song of the Enemy, and the Song of the Undersea. For 10 points each:
[10] Name this short novel whose protagonist, Kino, attempts to sell the title object, until his son Coyotito is shot.
ANSWER: The _**Pearl**_
[10] This American wrote _The Pearl_ as well as other short novels like _Of Mice and Men_, and a few novels that could have been a whole lot shorter, like _East of Eden_.
ANSWER: John **Steinbeck**
[10] Steinbeck set _East of Eden_, _Tortilla Flat_, _The Red Pony_, _Of Mice and Men_, and many other works, in this California valley, his hometown.
ANSWER: **Salinas** Valley

19. The author decides it is better to be a Pericles than an Alcibiades or a John Knox in this work's chapter on individuality. For 10 points each:
[10] Name this philosophical work which popularized the concept of the "tyranny of the majority." This book introduces the idea that power is given for leaders to ensure no citizen is unduly hurt by others, the harm principle.
ANSWER: _**On Liberty**_
[10] _On Liberty_ is a work by John Stuart Mill, who was a proponent of this school of thought formally created by Jeremy Bentham. It emphasizes taking the action that would most help the greatest amount of people.
ANSWER: **utilitarianism** [or word forms]
[10] In _A System of Logic_, Mill developed a set of namesake methods which helps with the experimental phase of this process. Francis Bacon put forth his namesake variant of this process in _Novum Organum_.
ANSWER: the **scientific method** [or **science**; or other word forms]

20. This man split from a Piccadilly institution he helped found, the Royal Academy of Arts. For 10 points each:
[10] Name this longtime rival to Joshua Reynolds. He painted a portrait of Jonathan Buttall holding a feather hat.
ANSWER: Thomas **Gainsborough**
[10] Gainsborough is most famous for painting that portrait of Buttall wearing this color, from head to toe.
ANSWER: **blue** [or The **Blue** Boy]
[10] The Blue Boy is made in imitation of this court painter to Charles I, whom Gainsborough much admired. He made a well-known self-portrait with a sunflower.
ANSWER: Anthony **van Dyck**