

Tossups

1. In Greek mythology, the lover of Smilax was turned into one of these things. In Japanese mythology, the reason that humans have short lifespans is because Ninigi married the princess of these things, rather than the princess of rocks. In Aztec mythology, a goddess associated with these things was followed by a retinue of birds and butterflies, and was once (*) kidnapped by Tezcatlipoca. Kama's arrows were tipped with these things, and the Aztec gods Xochipilli and Xochiquetzal were associated with them. After being gored to death, Adonis' blood fell to the ground and created one of these things, as did a boy loved by Apollo and Zephyrus who was struck by a discus. For 10 points, name this type of plant associated with Hyacinthus.

ANSWER: flowers [prompt on “plants”, accept more specific answers]

2. At the end of this play, we are told that one character will use his “pelf” to “feast you often, and invite new guests,” referring to the audience in the theater. In another scene, a character plays the cittern offstage to signify the arrival of elves to a blindfolded man; in reality, two men are pinching him and telling him to throw his possessions to the floor on the order of the Queen of Fairy. The master of the central household had originally fled the (*) plague but when he returns, his butler must return to his old persona of Jeremy. Some of the “gulls” in this play include Kastril, the brother of the widowed Dame Pliant, the law clerk Dapper, and a tobacco seller named Druggier. Those characters are conned by the prostitute Dol Common and Captain Face. For 10 points, name this play in which Subtle pretends to have the philosopher's stone, by Ben Jonson.

ANSWER: *The Alchemist*

3. These substances have a coefficient of thermal expansion equal to one over temperature, and the viscosity of these substances is proportional to quantity T over T sub zero to the three-halves according to Sutherland's formula. A naive derivation of the entropy of these substances leads to a divergence at absolute zero, though accounting for quantum mechanical effects allows for the derivation of the (*) Sackur-Tetrode equation. These substances necessarily have a compressibility factor equal to one. These substances consist of non-interacting substituents and have infinitely small particles. The product of Boltzmann's constant and Avogadro's constant is equal to their namesake constant, which equals approximately 8.31 in SI units. For 10 points, name these substances which are described by the law PV equals nRT.

ANSWER: ideal gas

4. The protagonist of this novel encounters a man who says, “I am not anybody,” and, “We have no names here,” after which he explains how to build up a personality from the chess pieces that moved themselves on the board; that takes place after the protagonist sees a bunch of armored cars chasing and killing pedestrians. A sign-bearer in this novel gives the protagonist a (*) “Treatise” on himself which explains that he will commit suicide on his fiftieth birthday despite his ability to be an “Immortal.” Mozart appears to admonish the protagonist after he finds a knife in his pocket that he uses to kill the companion of the saxophonist Pablo, a woman named Hermine; that occurs in the “Magic Theater.” For 10 points, name this novel about the half-animalistic nature of Harry Haller written by Hermann Hesse.

ANSWER: Steppenwolf [or *Der Steppenwolf*]

5. In a scene in this book, the sons of Sceva are beaten to a bloody pulp by a demonic man. Later in it, the corrupt governor Felix expects a bribe from a prisoner; that prisoner is later put on trial by the more responsible governor Festus. This book contains a scene where a man notices an altar with the inscription “TO A GOD UNKNOWN” while walking around Mars Hill at Athens. Its final chapters describe a man

sailing to (*) Rome for his trial, only to be shipwrecked on Malta. Earlier in this book, that man is blinded while on the road to Damascus. This book begins with the Holy Spirit's arrival at Pentecost and later chronicles the conversion of Saint Paul. For 10 points, name this book describing the founding of the early Christian church, a New Testament text that follows the Gospels.

ANSWER: Acts of the Apostles

6. One work by this composer begins with single tone eighth notes before adding a second, third, and fourth tone to the eighth notes on the bass clef; that piece starts with an *Allegro vivace (quasi presto)* section in 3/8. This composer wrote the *Concerto pathétique* as a continuous piece with four sections before his similarly structured *Piano Sonata in B minor*. This composer used (*) Lamartine's poetry for one work, and he used the Gregorian *dies irae* as the melodic basis for his *Totentanz*. His *Bagatelle without tonality* was perhaps intended to replace the fourth and last of a set of works that begins with "The Dance in the Village Inn" and is based on Nikolaus Lenau's *Faust*. For 10 points, name this composer of the *Mephisto Waltzes* as well as the *Hungarian Rhapsodies*.

ANSWER: Franz Liszt [or Liszt Ferenc; or Franz Ritter von Liszt]

7. The commutator of this quantity with momentum appears in the operator for dipole transition matrix elements. The inverse Fourier transform of this function is used to derive the Darwin interaction term in the Lagrangian for a particle in a field. This quantity is equal to a constant times an integral of the current density over volume in the definition of retarded potentials. The importance of this quantity was shown in an experiment in which a beam of electrons were split while travelling (*) around a solenoid, causing them to acquire a 180 degree phase shift named for Berry. This quantity, which is added to the gradient of an arbitrary function in a gauge transformation, was shown to have physical relevance by the Aharonov-Bohm effect. For 10 points, name this quantity symbolized A, whose curl gives the magnetic field.

ANSWER: Vector potential

8. This general made a brilliant nighttime attack against enemy tents to break up a coalition force besieging him at Utica. This general served as legate during his brother Lucius's campaign against Antiochus III of Syria. His victory at Baecula prompted the losing commander at that battle to launch a failed attempt to link up with his brother's forces. This general used heavier flanks to execute a "reverse (*) Cannae" maneuver at the Battle of Illipa in Spain. This general saved his father's life at the Battle of Lake Ticinus. In his most famous battle, he opened up his ranks to neutralize the effect of the Carthaginian Elephant Corps. For 10 points, name this Roman general who won the Battle of Zama by defeating Hannibal and thus ended the Second Punic War.

ANSWER: Scipio Africanus the Elder [or Scipio Africanus Major; or Publius Cornelius Scipio Africanus; prompt on "Scipio"]

9. One figure involved in this case was given a five-and-a-half ounce gold box for his role and was referred to as "the day-star" of the revolution by one official. The defense stated that the law in question had its origins in the Star Chamber, and appealed to the jury to use their daily lives to determine whether the defendant was telling the truth. The accused in this case had taken issue with the replacement of Chief Justice Lewis (*) Morris by James DeLancey, as enacted by governor William Cosby, and published a series of articles in the *New-York Weekly Journal*. For 10 points, name this event in the colonial United States in which a namesake newspaperman was sued for libel.

ANSWER: Trial of John Peter Zenger

10. This artist made a yellow tinted work showing a seated young girl on the left looking at two pigs who drink from a bowl. This artist drew a white Spitz dog looking up at a woman wearing a black hat who locks arms with a man in a portrait of the Hallett family. A large central oak tree indicates stability in a painting by

this artist of *The (*) Morning Walk*; that painting shows a dog at the bottom left near the leg of a man who stands with a rifle in the crook of his arm, while his blue-clad wife is seated beside him. One of this artist's works hangs in the Huntington Gallery across from a Thomas Lawrence work and is a portrait of Jonathan Buttall. For 10 points, name this painter of *Mr and Mrs Andrew* and rival of Joshua Reynolds who created *The Blue Boy*.

ANSWER: Thomas Gainsborough

11. The vinculin binding site of talin is a C-terminal helical bundle named for its taking of this shape. Hirano bodies in Alzheimer's disease take this shape. Acute promyelocytic leukemia shows inclusions of this shape named for Auer. This is the name and shape taken by the central helix-rich domain of an intermediate filament that forms (*) coiled-coil dimers. One organism that takes this shape secretes the lethal factor and edema factor, while another one is responsible for the self-limiting diarrhea caused by eating unclean reheated rice. A cell named for this shape has a peak sensitivity at 498 nanometers and is concentrated in the periphery of the retina. For 10 points, name this shape, which is taken by Bacillus bacteria and cells in the eye that sense low levels of light and complement cone cells.

ANSWER: rod [accept cylindrical; accept filamentous before the word "intermediate"]

12. This thinker discusses the fetishistic handicap in a paper that contrasted the examples of a pleasure-wizard and a cripple to mount a moral criticism on utilitarianism from case-implication. This thinker included the commitment to minimal freedom and general functionality as two of three criteria that cannot be simultaneously satisfied; he illustrated that idea with the example of Lewd and Prude who can be given a copy of (*) *Lady Chatterly's Lover*. This thinker showed that a commitment to Pareto Optimality is impossible in the "liberal paradox" and he argued that inefficient distribution mechanisms caused the title events in another work. For 10 points, name this Nobel Prize-winning economist who wrote *Poverty and Famines*, which presented case studies of his native India.

ANSWER: Amartya Kumar Sen

13. In this opera, two characters decide to marry in a song beginning, "there is beauty in the belly of the beast." Katisha falls in love with a man who tells of a bird that sang, "willow, titwillow, titwillow," in this opera that also describes how "a cheap and chippy chopper on a big black block" is to be used to deliver the "sensation of a short, sharp (*) shock" at the hand of an ex-tailor who has a "little list." The song "Three Little Maids from school" introduces the lover of the protagonist, whose father made flirting a capital crime. This opera is set in Titipu, where Pooh-bah holds all titles except the one held by Ko-Ko, Lord High Executioner. This opera ends with Yum-Yum's marriage to Nanki-poo. For 10 points, name this Gilbert and Sullivan opera about a town ruled by the title Emperor of Japan.

ANSWER: *The* Mikado; or *The Town of Titipu* [prompt on "*The Town of Titipu*"]

14. In his prize essay, Schopenhauer attempted to derive this property from self-consciousness by positing three types of freedom. William James proposed a two stage model of this idea - that model was compared to biological evolution by Ernst Mayr. A book about the "varieties of [this concept] worth wanting" proposes that intuition pumps have been unconsciously used to explain it. This concept is explained in (*) Daniel Dennett's *Elbow Room*. Because it does not possess this property, the ass in Buridan's thought experiment will eventually die. Compatibilist accounts hold that this concept can be reconciled with a fixed universe. For 10 points, name this idea that is contrasted with determinism, and which allows humans to make their own decisions.

ANSWER: free will [accept freedom; or choice; or freedom of the will]

15. In 2010, the International Court of Justice upheld this country's right to operate two paper mills on a river that forms its western border. This country's northern border is marked by the Cuareim River. This country contains the western half of the Merin Lagoon. The only UNESCO World Heritage site in this

country is the historic quarter of Colonia del (*) Sacramento. The highest point in this country is the Cerro Catedral. This country's namesake river has a tributary called the Rio Negro; that namesake river forms its western boundary. This country has the southernmost capital in the Americas. For 10 points, name this country on the north shore of the Rio de La Plata, across from Argentina to its south.

ANSWER: Oriental Republic of Uruguay [or *Republica Oriental del Uruguay*]

16. The energy of this process is given by a power law of temperature to the 19.9. The products of this process are mixed in the second dredge-up. The cores of entities in the upper portion of the main sequence is dominated by convection driven by this process. This process produces 26.8 MeV of energy, along with 3 gamma rays, two positrons, and three electron neutrinos. This process becomes dominant at a temperature of around 17 million kelvin and in stars greater than 1.3 (*) solar masses, and in this process, four protons fuse together to form a helium atom. It is sometimes named for Bethe and Wiesczaker. Minor branches of this process create fluorine-18 and fluorine-19 along with its namesake elements. For 10 points, name this stellar nucleosynthesis reaction that dominates over the proton-proton chain in heavier stars, named for the three elements that comprise it.

ANSWER: CNO cycle [or carbon-nitrogen-oxygen cycle; prompt on stellar "nucleosynthesis" or "fusion"]

17. One writer from this country wrote about how the "red one," Paddy Oshea, and Maisy's lover, Xuma, lead a strike. In a novel primarily set in this country the protagonist gets put under surveillance and moves to France to stay with Katya where she falls in love with the married student Bernard Chaballier. This country produced the author of *Mine Boy*, Peter Abrahams, and Etienne Leroux, a member of the literary movement (*) Die Sestigers. In a novel set in this country, a man takes a copy of Lincoln's Gettysburg Address from his son's room after visiting John Harrison; in that novel set here, Mr. Carmichael takes up the defense *pro deo* for the murderer who killed Arthur Jarvis. For 10 points, name this country whose authors produced *Burger's Daughter* and *Cry, the Beloved Country* by Nadine Gordimer and Alan Paton.

ANSWER: South Africa [or The Republic of South Africa]

18. During this era, lands were divided up into taxable units called *myo*, and the state contracted out local provincial administration to *zuryo*, or tax managers, who used the Records Office to settle disputes with landowners. This period formally began shortly after Prince Sawara was suspected of Tanetsugu's murder in the streets of Nagaoka, forcing a change in capital. Near this period's end, forces loyal to Emperor Sutoku lost a civil war called the Hogen Disturbance to his brother (*) Go-Shirakawa. The reign of Emperor Go-Sanjo was a brief interregnum in the Fujiwara Clan's control over the throne in this period, which saw the rise of the Tendai school and the peak of Chinese influence. For 10 points, name this period from 794 to 1185 in which Japanese literature and court life flourished that was ended by the Genpei War and the formation of the first shogunate.

ANSWER: Heian period [or Heian-jidai]

19. This poet described, "All pleasures and all pains... These are the measures destined for her soul," after asking, "What is divinity if it can come Only in silent shadows and in dreams?" The speaker of that poem later wonders, when "their warm fields Return no more, where, then, is paradise?" in a poem that repeats the line, "Death is the mother of beauty." This author asked, "Whose spirit is this? we said, because we knew It was the spirit that we sought," before telling how "She (*) measured to the hour its solitude. She was the single artificer of the world." This author called out to "Ramon Fernandez" in a poem beginning, "She sang beyond the genius of the sea," and wrote "Sunday Morning." For 10 points, name this poet of "The Idea of Order at Key West" who wrote, "Call the roller of big cigars," in "The Emperor of Ice-Cream."

ANSWER: Wallace Stevens

20. The policies of one party that came to power after this conflict were opposed in the Golaniad protests. During this conflict, a TAB armored personnel carrier crushed the journalist Jean Louis Calderon. After ordering soldiers without ammo to put down this conflict, the Minister of Defense committed suicide. This event led to the rise of the FSN. It was partly triggered by an eviction order against a figure who had made comments against the government's "Systematization" Policy; that figure was (*) Lazlo Tokes, the Bishop of Timisoara. One target of this conflict attempted to escape in a helicopter before being captured, subjected to a show trial, and executed on Christmas Day. For 10 points, name this 1989 event which led to the overthrow of Elena and Nicolae Ceausescu in an Eastern European country.

ANSWER: 1989 Romanian Revolution [accept things like Overthrow of Ceausescu before his name is mentioned; or 1989 Revolutia Romana]

TB. It's not silicon, but a halide of this element is used as the Lewis acid in the Mukaiyama aldol condensation. One compound that contains this non-iron element was synthesized by Birmingham and Wilkinson and contains a pair of cyclopentadienyl rings and a pair of halides; that metallocene is found in a pair of reagents used for the methylenation of carbonyls. This element is found coupled to aluminum in (*) Ziegler-Natta catalysts, and it is produced from its tetrachloride via liquid magnesium reduction at 850C in the Kroll process; that process obtains it from rutile. This metal, which is chemically similar to zirconium, has an oxide which is found in the star-shaped inclusions of star sapphires. For 10 points, name this metal commonly used in lightweight alloys, with atomic number 22 and symbol Ti.

ANSWER: titanium [accept Ti before mentioned]

Bonuses

1. This thinker said that the title acts are moderated by other people, unlike operant behaviors which are moderated by the environment, in his book *Verbal Behavior*. For 10 points each:

[10] Name this behaviorist who did a lot of work on operant conditioning. Among his inventions were the air crib and a teaching machine.

ANSWER: Burrhus Frederic **Skinner**

[10] This other behaviorist is known for positing that a “satisfying” after-effect of an action will strengthen an association, while an unsatisfying effect will diminish it.

ANSWER: Edward **Thorndike**

[10] Thorndike’s Law of effect was tested by placing these animals into puzzle boxes.

ANSWER: **cats**

2. This play begins with Madame Pernelle criticizing her grandchildren and telling everyone to follow the title character’s example of good behavior. For 10 points each:

[10] Name this play by Moliere about a man who tries to get Orgon arrested as a traitor despite Cleante’s pleas. He ends up getting arrested when it is revealed that the king knew he was a liar.

ANSWER: **Tartuffe**, or *The Imposter* [or **Tartuffe**, ou *l’Imposteur*]

[10] This other Moliere play tells the story of Gorgibus’s daughter and niece, Magdelon and Cathos, who reject La Grange and Du Croisy but fall in love with their disguised valets.

ANSWER: *The* **Affected Young Ladies** [or *The* **Affected Ladies** or *The Ridiculous* **Precieuses** or *Les* **Precieuses ridicules**]

[10] Moliere also wrote this controversial play about Arnolphe who desires to wed his ward, Agnes. The play ends with Arnolphe’s plot being foiled because Agnes is set to marry Horace.

ANSWER: *The* **School for Wives** [or *L’ecole des femmes*]

3. In this novel, Leander crashes his boat, the S.S. Topaze, which further emasculates him after he has been dependent on his cousin Honora’s financial support for some time. For 10 points each:

[10] Name this novel about the family of Leander and his sons, Moses and Coverly, who live in the fishing village of St. Botolphs.

ANSWER: *The* **Wapshot Chronicle**

[10] *The Wapshot Chronicle* is a novel by this author who once taught at the Iowa Writers’ Workshop and won the Pulitzer for his self-titled collection, *The Stories of this man*.

ANSWER: John William **Cheever**

[10] Cheever also wrote this short story about Neddy Merrill who somehow travels through time on his way home and finds his house abandoned at the end of the story.

ANSWER: “The **Swimmer**”

4. This deity once created a fine gossamer net to trap his wife in bed with her brother, and he once gave a beautiful necklace to Thetis. For 10 points each:

[10] Name this husband of Aphrodite who was once thrown from Olympus by Hera, giving this blacksmith-god his ugly and lame appearance.

ANSWER: **Hephaestus**

[10] In another of his sexual exploits, Hephaestus attempted to rape Athena, but failed. When Athena wiped her thigh and threw the semen on the ground, this figure was born.

ANSWER: **Erichthonius** [accept **Erechtheus**]

[10] Erichthonius usurped Amphycion from this position. One holder of this position had daughters named Herse, Pandrosus, and Aglaurus who found Erichthonius in a box and went insane, causing them to jump off a cliff.

ANSWER: **King of Athens** [prompt on “ruler of Athens”; prompt on “king”]

5. Nikolay Pavlovich Ignatyev issued the 1882 May Laws to restrict the movement of these people. For 10 points each:

[10] Name these people who were often targeted in pogroms in cities such as Chisinau, Odessa, and Kiev after the assassination of Alexander II. These people founded a General Labour Bund in 1897.

ANSWER: Russian **Jews** [or anything that indicates that these are **Jews** in Russia; prompt on “Russians”]

[10] Since the Partitions of Poland, Russian Jews were technically only allowed to live in this area in Eastern Russia.

ANSWER: **Pale** of Settlement

[10] The worst Odessa pogrom broke out during this year, which was also the formation year of most of the Black Hundreds.

ANSWER: **1905**

6. The Masjid Negara in this city had its pink roof replaced by green and blue tiles in the 1980s, and contains a minaret topped by a folded umbrella. For 10 points each:

[10] Identify this city, which contains the Caesar Pelli-designed Petronas Towers, which were also inspired by Islamic architecture.

ANSWER: **Kuala Lumpur**, Malaysia

[10] This man designed the National Assembly Building in Kuwait. This proponent of additive architecture also designed a building engineered by Ove Arup and Co whose ceiling is a series of spherical shells.

ANSWER: Jorn **Utzon**

[10] This other architect designed the Guangzhou Opera house and won the commission for the 2020 Olympic stadium in Tokyo. Her other designs include a ski jump in Innsbruck.

ANSWER: Zaha **Hadid**

7. This former governor of Henan is the second most important figure in his country’s Fifth Generation of leadership. For 10 points each:

[10] Name this member of the *Tuanpai* and successor to Wen Jiabao as Premier of China.

ANSWER: **Li** Keqiang

[10] Li Keqiang was governor of Henan during an outbreak of this disease caused by tainted equipment used by commercialized blood banks that collected from peasants as well as poor sexual education.

ANSWER: **AIDS** [or **HIV**; or **Acquired Immunodeficiency Syndrome**; or **Human Immunodeficiency Virus**]

[10] Li Keqiang rose through party ranks via this organization for which he served a five-year term as First Secretary, similar to Hu Jintao. This group is seen as a power group distinct from the princelings.

ANSWER: **Communist Youth League** of China [or **China Youth League**; or *Zhongguo Gongchanzhuyi Qingnian tuan*; or *Chung-kuo Kung-ch'an-chu-i Ch'ing-nien-t'uan*; prompt on “Youth League”, “Communist Youth,” or “China Youth”]

8. Answer some questions about Jablonski diagrams, for 10 points each:

[10] Straight arrows on Jablonski diagrams indicate radiative transitions. An example of such a phenomenon is this one, in which a molecule absorbs light at one frequency and emits it at another.

ANSWER: **fluorescence**

[10] The states on a Jablonski diagram are grouped by their multiplicity of this quantity, which, for a given electron, is equal to either one-half or negative one-half.

ANSWER: **spin**

[10] Another radiative transition shown on Jablonski diagrams is phosphorescence, which occurs when an electron undergoes this type of transition. This type of transition violates one or more selection rules.

ANSWER: **forbidden** transition

9. Henry Cazalis coined the name for this group of artists that was inspired by the Serusier painting *The Talisman*.

For 10 points each:

[10] Name this group of artists that included the painter of *Dining Room in the Country*, Pierre Bonnard, and Edouard Vuillard.

ANSWER: Les **Nabis**

[10] Les Nabis also included Maurice Denis, who painted a work titled *Homage to* this other French artist who made many paintings of Mont Sainte-Victoire.

ANSWER: Paul **Cezanne**

[10] Another art movement from the era of Les Nabis was this one that included artists like Odilon Redon and Gustave Moreau. This movement's manifesto stated that it was opposed to "matter-of-fact description."

ANSWER: **symbolism** [or **symbolists**]

10. This British prime minister lost power after giving a speech attacking the Reform Act of 1832. For 10 points each:

[10] Name this politician who earned the nickname "Iron Duke" because of metal shutters used to prevent his windows from being shattered by supporters of reform, but not because of his victory at Waterloo.

ANSWER: Duke of **Wellington** [or Arthur **Wellesley**, 1st Duke of Wellington; or **Iron Duke** before mention]

[10] This Whig Prime Minister succeeded the Duke of Wellington and got the Reform Act of 1832 passed after threatening to force William IV to appoint pro-Reform members to the House of Lords.

ANSWER: Charles Grey, 2nd **Earl Grey** [or The Right Honourable Lord **Grey**; or **Viscount Horwick**]

[10] A royal opponent of the 1832 Reform Bill was this uncle of Queen Victoria who served as Duke of Clarence and became the first person since George I to be the ruler of Hanover but not the ruler of Britain.

ANSWER: **Ernest Augustus I** of Hanover [or **Duke of Clarence** before mention; prompt on "Ernest Augustus"]

11. This operation is applied to the Wronskian to determine linear independence of solutions to differential equations. For 10 points each:

[10] Name this alternating multilinear function that is usually indicated by putting straight bars on either side of a matrix.

ANSWER: **determinant**

[10] This is the determinant of the matrix of a non-invertible transformation.

ANSWER: **zero**

[10] This criterion uses repeated determinants of the upper square corners of a matrix in order to determine whether the matrix is positive-definite.

ANSWER: **Sylvester**'s criterion

12. His book *A Fragment on Government* was intended as an introduction to Blackstone's *Commentaries*. For 10 points each:

[10] Name this philosopher who proposed a "felicific calculus" in judging human action in *An Introduction to the Principles of Morals and Legislation*.

ANSWER: Jeremy **Bentham**

[10] Bentham and John Stuart Mill were two of the early modern philosophers that espoused this view, which argues that actions should maximize human happiness.

ANSWER: **Utilitarian**ism [accept **Utilitarianists**]

[10] A modern day Utilitarian, J.J.C. Smart, was a philosopher from this country. Other philosophers from here include the author of *The Conscious Mind*, David Chalmers, and animal rights proponent Peter Singer.

ANSWER: Australia

13. The speaker says he “sha’n’t forgit the night When [he] dropped be’ind the fight With a bullet where [his] belt-place should ‘a’ been” and this character came to his rescue. For 10 points each:

[10] Name this character about whom the speaker of a poem says, “The uniform ‘e wore Was nothin’ much before.” While saving that speaker, this character takes a bullet and dies.

ANSWER: Gunga Din [accept either underlined portion]

[10] In this other poem, the speaker tells his son to “talk with crowds and keep [his] virtue,” among other things, and concludes, “Yours is the earth and everything that’s in it, And... you’ll be a Man, my son!”

ANSWER: “If”

[10] “Gunga Din” and “If” were written by this English poet who also wrote “The White Man’s Burden” and *The Jungle Book*.

ANSWER: Joseph Rudyard Kipling

14. One of these substances contains a ruthenium atom bonded to three triphenylphosphine groups and a chloride; that one is named for Wilkinson and is used in hydrogenation reactions. For 10 points each:

[10] Name these substances that lower the activation energy of a reaction. Enzymes are biological ones.

ANSWER: catalysts

[10] This catalyst is used to selectively transform alkynes into cis-alkenes. It consists of palladium deposited on barium sulfate, then poisoned with lead.

ANSWER: Lindlar's catalyst

[10] This is the name given to a solid matrix upon which a catalyst is dispersed to increase its surface area.

ANSWER: catalyst support

15. The glycosaminoglycan components of proteoglycans are synthesized in this organelle, which disappears upon treatment with the fungal toxin Brefeldin A. For 10 points each:

[10] Name this organelle responsible for packaging and secreting proteins. O-linked glycosylation mainly occurs in this organelle.

ANSWER: Golgi apparatus

[10] Parts of the Golgi apparatus pinch off to form these small spheres, which contain proteins and other macromolecules to be transported around. In neurons, they are docked at axon terminals.

ANSWER: vesicle

[10] N-linked glycosylation starts off in the ER with the transfer of a 14-sugar oligosaccharide unit from *this* membrane lipid to an asparagine residue.

ANSWER: dolichol

16. One person who protested against this policy was Steve Biko, who was beaten to death by police, and the terrorist group Spear of the Nation also opposed this policy. For 10 points each:

[10] Name this policy of racial segregation in South Africa. It led to the creation of Bantustans, which were set aside for black people.

ANSWER: apartheid

[10] Many political dissidents in South Africa were sent to this island prison. Nelson Mandela spent almost 20 years here, and many of those charged in the Rivonia Trial were also sent here.

ANSWER: Robben Island

[10] This prime minister of South Africa and leader of the Reunited National Party beat out Jan Smuts in the 1948 general election. He ran on a platform of implementing apartheid, playing up the fears of white South Africans.

ANSWER: Daniel Francois **Malan**

17. The narration of this story switches between a first-person narrator, Michel, and Michel talking about himself in the third-person. For 10 points each:

[10] Name this story in which Michel thinks he saw a boy who was about to have sex with a hooker, but instead realizes that he saw that boy just before he got robbed.

ANSWER: "**Blow-up**" [accept "*Las **babas del diablo***" or "*The **Devil's Drool***"]

[10] "Blow-up" was written by this author of "Axolotl" who also wrote a novel about Horacio Oliveira with 99 "expendable" chapters, titled *Hopscotch*.

ANSWER: Julio **Cortazar** [or Jules Florencio **Cortazar**]

[10] Cortazar's *Hopscotch* is sometimes considered to be the first novel of this movement of the 1960s and 70s during which Latin American authors grew in international prominence.

ANSWER: Latin American **Boom**

18. During this election, philanthropist Peter Cooper ran on the Greenback Party ticket. For 10 points

[10] Name this election year in which Rutherford B. Hayes defeated Samuel Tilden after the Republicans agreed to end reconstruction.

ANSWER: Election of **1876** [prompt on "76"]

[10] This was the name given to Democrats like Samuel Tilden and Grover Cleveland who adhered to classical liberalism and laissez-faire policies.

ANSWER: **Bourbon** democrats

[10] While governor of New York, Samuel Tilden managed to oust this group of corrupt contractors, who were overcharging for repairs to the state's waterways and pocketing the money.

ANSWER: the **Canal ring**

19. The Rinzai school of this sect emphasizes self-contemplation, called kensho, which eventually leads to the state of satori. For 10 points each:

[10] Name this Japanese branch of Mahayana Buddhism that focuses on meditation and contemplation of seemingly contradictory statements called koans.

ANSWER: **Zen** Buddhism [prompt on "Buddhism"]

[10] This is the name given to the practice of seated meditation in Zen Buddhism. It can be done in the full-lotus or half-lotus postures.

ANSWER: **Zazen**

[10] When Bodhidharma visited the Emperor Wu, one of his officials stated that this bodhisattva was communicating through him. This figure has a lot of arms to remove obstacles.

ANSWER: **Guanyin** [or **Avalokitesvara**]

20. This composer wrote a *Concerto Fantasy for Two Timpanists and Orchestra* as well as the *Buczak* and *Mishima* string quartets. For 10 points each:

[10] Name this composer who commemorated Leonard Slatkin with his three movement *Symphony No. 7*, also known as *A Toltec Symphony*.

ANSWER: Philip Morris **Glass**

[10] Glass wrote three operas in a trilogy by this name. This trilogy includes *Akhmaten* and *Einstein on the Beach*.

ANSWER: the "**Portrait** Trilogy"

[10] Philip Glass also composed music for several of these works like Godfrey Reggio's *Koyaanisqatsi*. John Williams is one of the most famous composers of these works.

ANSWER: **films** [or **film** scores; or **movies**; or **movie** soundtracks; or equivalents like **motion pictures**]