

1. One work by this artist shows a winged woman balancing on a sphere and holding a goblet in one hand, and represents Nemesis or Fortuna. This artist depicted the Virgin, Christ, and St. Dominic handing out flowers in *The Feast of the Rose Garlands*. One of his self-portraits depicts this artist at age 28 in a fur coat, and is noted for its striking resemblance to pictures of (*) Christ from that time. An image by this artist shows a demon holding up the work's title next to a rainbow, as well as an angel holding a compass while lost in thought. He also depicted Plague, Death, Famine, and War in *The Four Horsemen of the Apocalypse*. For 10 points, name this German artist of *Melancolia I*, one of his many woodcuts.

ANSWER: Albrecht Durer

<Rosenberg>

2. This man was seriously injured as a youth under Francisco de Almeida on India's Malabar Coast, and again at the Battle of Diu, which required a four-month recovery in Cochin. This man was championed by Bishop Juan Rodriguez de Fonseca, who nonetheless retained nationalist suspicion towards him. This figure converted Rajah Humabon to Christianity and along with Rui Faleiro secured funding for his major effort from Emperor (*) Charles V. That expedition was abandoned by the *San Antonio* before the *Trinidad*, *Concepcion* and *Victoria* reached the Peru Current. This man died in battle against Lapu-Lapu, but his expedition was completed by Juan Sebastian del Cano. For 10 points, name this leader of the first voyage to circumnavigate the Earth.

ANSWER: Ferdinand Magellan [or Fernão de Magalhães or Fernando de Magallanes or Hernando de Magallanes]

<Bentley>

3. In one opera by this composer, one character keeps interrupting her own song about Cyprus during a lesson, angering the Marquise, in the trio "Le jour naissait dans le bocage". That opera by him ends with the patriotic "Salut à la France". In one opera by him, a character imagines a fountain's waters turning blood red in "Regnava nel silenzio". In one opera by him, (*) Tonio hits nine high C's in the aria, "Ah! mes amis". In another opera by him, the interruption of the signing of a marriage contract leads to a grand sextet, and the title character murders Arturo Bucklaw and imagines a life with Edgardo in "Il dolce suono", during her mad scene. For 10 points, name this bel canto composer of *La fille du regiment* and *Lucia di Lammermoor*.

ANSWER: (Domenico) Gaetano (Mario) Donizetti

<Lawrence>

4. This structure disappears in organisms with mutations in the Twinkle helicase and contains a pair of hypervariable regions within its D-loop. Diseases linked to this structure are suppressed by heteroplasmy. Defects in this structure cause cyclic vomiting syndrome and a disease in which ragged red fibers appear in muscle. In humans, this structure contains a 7S rRNA gene that mice lack. This structure, mutations in which cause Lieber's (*) Neuropathy and several myopathies, contains several tRNA genes and genes encoding components of the electron transport chain. Mutations of this structure are almost exclusively maternally inherited. For 10 points, name this circular structure found inside the matrix of an organelle that produces ATP.

ANSWER: mtDNA [or mitochondrial genome or mitochondrial DNA; prompt on "mitochondria"]

<Mukherjee>

5. One poem written in this language states "As we grow older, we get honester - that's something". Another poem by that same author in this language features a speaker comparing himself to a "soundless scream" and asserting "It seems to me that Dreyfus is myself". That poem written in this language states "No monument" stands over the title location. A different user of this language wrote *My Sister, Life* but is better known for a novel whose protagonist is abducted by (*) Liberius, the leader of the Forest Brotherhood, after meeting an army general known as "the shooter" and falling in love with that man's wife Lara. For 10 points, name this language spoken by "Babi Yar" poet Yevgeny Yevtushenko and *Doctor Zhivago* author Boris Pasternak.

ANSWER: Russian Language [or ruskij jazyk]

<Jose>

6. This system is modeled by the Agekyan-Anosova map, which has a strange attractor at x equals point five and y equals zero. Jacobi's integral gives a conserved quantity for this system. This problem can be solved by a slowly-converging series in powers of t to the one-third; that result was by Sundman. The H two plus ion is a quantum version of this problem, which is often solved using first-order perturbation theory. One restricted version of this problem displays five equilibrium points named for (*) Lagrange. This non-integrable problem is approximated by assuming one mass is much smaller than the others. For 10 points, name this problem about the motion of the requisite number of massive objects under gravity, most often applied to the Earth, Moon, and Sun.

ANSWER: three-body problem [accept n-body problem]

<Mukherjee>

7. In Greek cities, the Prytaneum was sacred to this type of god; so was a three-story atrium between the Roman Regia and the Palatine Hill. A deity of this type was saved while sleeping alongside the maiden Lotis by the braying of Silenus's donkey, and made an oath by Zeus's head. The first deity invoked in any Greek sacrifice was this kind of deity. Roman families offered meat to the Lares affiliated with this realm. The last child to be (*) vomited up by Cronus, and the first to be swallowed, governed this domain; that goddess refused Poseidon and Apollo, had devotees who served for thirty years including Rhea Silvia, and resigned her seat on Olympus for Dionysus. For 10 points, name this familial area protected by Hestia and venerated by the Vestal Virgins.

ANSWER: goddesses of the hearth [or of the fireplace; or of the kitchen; or of the furnace; or of the oven; or of the sacred fire; accept any answer indicating a place in one's house where fire is produced; prompt on "the home" or "the house"; prompt on fire]

<Jackson>

8. Upon taking the throne, rulers of this state were expected to perform a great public service like expanding its baray irrigation networks. A mossy statue may explain why one ruler of this kingdom is known as the "Leper King." This state established a series of capitals at Hariharalaya and Mahendraparvata after supplanting the Chenla. It mixed with the Dvaravati Mon culture in the Lavo Kingdom to its west, and had its capital sacked in 1177 by the (*) Champa. Yuan missionary Zhou Daguan is the major source about this empire, which was ruled by Indravarman I and Jayavarman II. This empire built a large temple complex, or Wat, in its capital of Angkor. For 10 points, name this Cambodian empire which shares its name with a "Rouge" political party led by Pol Pot.

ANSWER: Khmer Empire/Kingdom/etc. [prompt on "Angkor Kingdom" or "Angkor Empire" until mentioned; prompt on "Cambodia" or "Kampuchea"]

<Bentley>

9. This poem describes how "a liquid ditty floats to the turtle-dove that listens, while she gloats on the moon" and claims that several "people" are "neither man nor woman - They are neither brute nor human - They are ghouls." Its speaker claims that "how the danger ebbs and flows" can be determined by "the sinking and the swelling in the anger of" the title entities. This poem describes objects which leap (*) "higher, higher, higher, with a desperate desire" and are found "moaning" and "groaning" by its end. Its author coined the word "tintinnabulation" to describe those objects, which come in "iron", "silver", and "wedding" varieties. For 10 points, the title objects keep "time, time, time in a sort of Runic rhyme" in which onomatopoeic Edgar Allan Poe poem?

ANSWER: "The Bells"

<Gupta>

10. This state's southwestern county was named for three Hawaiian explorers who disappeared on an expedition led by Donald Mackenzie. Protected lands in this state include fossil beds with many Hagerman horse fossils, a spring called Big Springs that is the source of part of Henrys Fork, and a basalt lava field known as the Craters of the Moon. Shoshone Falls on this state's largest river is part of a canyon system carved by the Bonneville Flood; that river's tributaries include the (*) Clearwater and one that rises in the Sawtooth Valley, the Salmon. This state, which contains Coeur d'Alene and lies west of the Bitterroot Range, is home to Lewiston in its panhandle and Pocatello near the Snake River. For 10 points, name this Gem State, whose capital is Boise.

ANSWER: Idaho

<Wasserman>

11. One work by this composer ends in 12-note chords the composer called "aggregates", and starts with three chords that each contain four notes of the piece's tone row. This composer of *Connotations* wrote a clarinet concerto whose two movements are linked with a cadenza featuring Latin American themes, and that was commissioned by Benny Goodman. One of his pieces opens with a rendition of "Springfield Mountain" and closes with a narrator reading the (*) "Gettysburg Address". "El Malacate" and "El Palo Verde" are two movements of his piece named for a Mexican dance hall. For 10 points, name this American composer of *A Lincoln Portrait* and *El Salón México*, who included variations of the hymn "Simple Gifts" in his *Appalachian Spring*.

ANSWER: Aaron Copland

<Chonai>

12. This work's author is called a "pretender" in Pierre Gassendi's objections to it. This book notes that the intellect can understand a thousand-sided chiliagon without imagining one, and claims each person has a "natural light" in the mind, which lets its author establish the "clear and distinct" criterion for truth. Dedicated to the Sorbonne, it is intended to be read in six days, reading one section per day. This work's narrator thinks on the nature of melting (*) wax and proves twice that God exists after assuring himself through reason alone that a "malicious demon" could not deceive all his senses. For 10 points, name this short work establishing the world's existence from the principle "I am a thing that thinks," by Descartes.

ANSWER: Meditations on First Philosophy, in which the existence of God and the immortality of the soul are demonstrated [or Rene Descartes' Meditations; or Méditations métaphysiques; or Meditationes de prima philosophia, in qua Dei existentia et animæ immortalitas demonstratur; prompt on Meditations]

<Jackson>

13. An assassination attempt led one holder of this office to create black ops Unit 684, who were driven crazy by brutal training regimens on Silmido Island and eventually massacred their own guards. The first holder of this office fled after a body killed by tear gas was found in Masan harbor. A later holder promoted the *chaebol* and was shot at dinner by his intelligence chief a year before the (*) Gwangju Uprising. The Blue House is the residence of this office, which was targeted by the April 19 Movement and held by a reformer who won a 2000 Nobel for his Sunshine policy. Its first holder was forced behind the Pusan perimeter after enemy forces crossed the 38th Parallel in 1950. Park Chung-hee, Kim Dae-Jung, and Syngman Rhee held, for 10 points, what executive office in Seoul?

ANSWER: President of South Korea [or President of the Republic of Korea; do not accept any answers involving "Democratic People's Republic of Korea"]

<Ray>

14. Measurements of this quantity are governed by the Pigou-Dalton principle, and are also subject to scale independence, population independence, and anonymity. This quantity is modeled as a kind of entropy in the Atkinson and Theil indices. The proportion of money that must be targeted in order to reduce this quantity to zero is known as the Hoover index. The most common measure of this quantity is the ratio of (*) two areas seen on a Lorenz curve diagram, and is the Gini coefficient. For 10 points, identify this quantity that is calculated for economies based on what proportion of the population controls what proportion of wealth.

ANSWER: economic inequality [or income inequality; or wealth inequality; since all measures of inequality are also inverse measures of equality, accept that in all cases]

<Weiner>

15. Mixmaster universe theory was proposed by Misner to explain the problem of this name by suggesting that the universe had a chaotic epoch. The cosmic censorship hypothesis holds that all solutions of Einstein Field equations lie beyond a region of this name. The altitude, the azimuth and the zenith distance are the three coordinates in a system which assumes that this region on Earth is the fundamental plane. The (*) problem of this name concerns how regions of the universe could appear so similar despite the distance between them and was solved by inflationary theory. One region of this name is a boundary from which light cannot escape. For 10 points, the point of no return for a black hole is the colloquial term for the "event" type of what region?

ANSWER: horizon [accept horizon problem or event horizon at any point]

<Jose>

16. It's not Judaism, but this denomination celebrates the "Lord's Evening Meal" ceremony on Nisan 14. It contains special members called the "faithful and discreet slave" class, and translates John 1:1 to read "the Word was a god" in its New World Translation of the Holy Scripture. Members believe in a literal government called God's Kingdom and can be punished by (*) "disfellowshipping." It believes exactly 144,000 people will enter heaven. A head of this faith, Fred Franz, once predicted 1975 as the end of the world. Founded by Charles Taze Russell, this denomination prays in Kingdom Halls and publishes a magazine called *The Watchtower*. For 10 points, name this Christian sect whose members refuse blood transfusions and proselytize door to door.

ANSWER: Jehovah's Witnesses

<Cheyne>

17. At the theta point, the self-repulsion of these substances matches a random walk model. They are modeled by an exponentially-decaying correlation function in the Kratky-Porod model. Substances like DEHP and DINP can be used to lower the glass transition temperature of these substances. If they can be dissolved and softened to be remolded into their old shape, they are called (*) thermoset. The formation of covalent bonds within these substances leads to an increase in their strength called crosslinking. Carothers' equation gives the namesake degree of the formation of these substances, which can proceed via a "step-growth" process. A synthetic example of them is Teflon. For 10 points, name these long molecules made of monomer units.

ANSWER: polymers

<Jose>

18. In one of this man's novels, Andrea Doria abandons Argalia to the Ottomans and several chapters are set in the court of Akbar the Great. He created a voice actor who gets fired from the children's show *The Aliens* after his presumed death and carries on a relationship with the mountain climber Alleluia Cone. A dream sequence in which Ayesha convinces pilgrims to walk into the sea appears in that novel by this man, which opens with (*) Saladin Chamcha and Gibreel Farishta falling from a plane. Another of his novels contains an antagonist known for his terrible knees, Shiva, who like the protagonist Saleem Sinai was born on the date of Indian independence. For 10 points, name this author of *The Satanic Verses* and *Midnight's Children*.

ANSWER: Salman Rushdie [or Ahmed Salman Rushdie]

<Bentley>

19. One commander at this battle failed to take advantage of the extended range of his four "big cats". Another commander at this battle went on to issue the suicidal 24 October Order two years later, triggering the Kiel Mutiny. A discrepancy between Lyddite and TNT explosive shells hurt one side in this battle. This clash included a chaotic night-fighting portion that saw limited radio capabilities, and began with a skirmish between Franz Hipper and (*) David Beatty. Reinhard Scheer's ships sank the *Indefatigable* and *Queen Mary* at this battle, where British forces were commanded by John Jellicoe. For 10 points, identify this "Clash of the Dreadnoughts," an indecisive naval battle off the coast of Denmark during World War I.

ANSWER: Battle of Jutland [or Battle of the Skagerrak]

<Bentley>

20. In a scene from one version of this work, a group of courtiers are forced to chase after a barge while its owner cackles madly. Its author employed a version of Brecht's alienation by having one character address the audience in different roles, including a Steward at the beginning of the play and a Headsman at the end. Its protagonist's daughter Meg attempts to marry William Roper, who attempts to persuade her father to arrest Richard Rich. The (*) Common Man narrates this play, whose protagonist reveals Signor Chapuys's plot to Norfolk, is prosecuted by Thomas Cromwell, and refuses to take the Oath of Supremacy, angering Henry VIII. For 10 points, name this play by Robert Bolt that ends with the death of its title character, Sir Thomas More.

ANSWER: A Man For All Seasons

<McNamara>

21. As governor, this man sent George Rogers Clark to invade the Illinois Country. William Wirt wrote some "Sketches of the Life and Character of" this man. He defended Hanover County parish in a lawsuit filed by James Maury over whether clerical salaries could be paid in cash when tobacco prices became inflated. That (*) "Parson's Cause" case helped make the reputation of this man, who later gave a speech that drew yells of "treason!" after he proclaimed, "Caesar had his Brutus, Charles the First his Cromwell" and "If this be treason, make the most of it". He opposed the Stamp Act in the Virginia Resolves, and was the first post-independence Governor of Virginia. For 10 points, name this colonial orator who proclaimed, "Give me liberty or give me death!"

ANSWER: Patrick Henry

<Bentley>

22. The resolution of this event included an agreement that fifty percent of the new hiring pool will consist of previously laid-off employees, and it also added between thirty and seventy-five minutes to the length of each workday. Among the issues precipitating this event, which was led by Karen Lewis, were the size of "step" and "lane" raises, an attempt to meet a state law requiring a 176-day minimum, and the gradual increase in the weighting of (*) test scores in evaluations. This September 2012 event's central issue was whether the base raise in pay would be thirty or seventeen percent. For 10 points, identify this labor action in which Rahm Emmanuel negotiated with a large union of educators.

ANSWER: 2012 Chicago teachers' strike [or CTU strike]

<Weiner>

23. This quantity is divided by particle number and raised to the three-halves power in one l-n term of the Sackur-Tetrode equation. The derivative of the partition function with respect to the thermodynamic beta gives this quantity. For an ideal gas, the derivative of this quantity with respect to entropy gives temperature, and this quantity is three-halves times particle number times Boltzmann's constant times temperature. This quantity minus temperature times entropy gives the (*) Helmholtz free energy. The change in this quantity is equal to the work done on the system plus the heat added according to the first law of thermodynamics. For 10 points, name this quantity symbolized U, which can also be expressed as the sum of kinetic and potential terms for a gas.

ANSWER: internal energy [or U before mention; prompt on energy or total energy]

<Mukherjee>

24. In this play's third act, a young man enters holding a gun, but his love interest pulls the gun into her chest to prevent him from firing. It begins with an architect debating a woman sitting in a hammock about the merits of "The Gospel of Art" versus "The Gospel of Getting On." In its fourth act, Mr. Praed visits Honoria Frazer's office to tell the protagonist he is leaving for Italy, but angers her by mentioning Brussels, which is where Sir George (*) Crofts helps operate the title character's businesses. The protagonist initially defends the title character to her beloved Frank Gardner, but Vivie refuses to shake her mother's hand at this play's end. For 10 points, name this George Bernard Shaw play in which Vivie learns that her mother runs brothels.

ANSWER: Mrs. Warren's Profession

<Gioia>

1. This realm's inhabitants fought the Vanir, including Frey and Freya, before accepting them into their fold. For 10 points each:

[10] Name this realm of the Norse gods. It is connected to Midgard by the Bifrost rainbow bridge.

ANSWER: **Asgard**

[10] The "poetic" one of these works retells the Aesir-Vanir war. Snorri Sturluson wrote the "Prose" one of these Icelandic works, our main primary sources for Norse myth.

ANSWER: **eddas** [or **eddur**; accept *Poetic Edda*; accept *Prose Edda*; accept Elder **Edda**; accept Younger **Edda**]

[10] This omniscient man was created as a symbol of truce during the war when all the gods spit into a cauldron. The blood of this murder victim was used to make the Mead of Poetry.

ANSWER: **Kvasir**

<Silverman>

2. This artist painted herself seated in a wheelchair next to a portrait of Doctor Farill, while a more famous self-portrait shows her wearing a thorn necklace as a monkey rests on her right shoulder. For 10 points each:

[10] Name this woman, who also painted two versions of herself with exposed hearts that are connected by a cord. At age 18, her spine was broken when the bus she was riding in collided with a trolley.

ANSWER: Frida **Kahlo**

[10] Frida Kahlo was the wife of this other Mexican painter and muralist, whose own works include *Detroit Industry* and *Man at the Crossroads*.

ANSWER: Diego **Rivera**

[10] A popular Diego Rivera painting shows an Indian girl, with her back to the viewer and her feet impossibly contorted, extending her arms to encompass a bunch of these objects. Dutch painter Rachel Ruysch specialized in painting these objects.

ANSWER: **flowers** [or the *Flower Vendor*; or **lilies**]

<Berend>

3. Identify the following about about a certain invention, for 10 points each.

[10] Pioneers using this technology included J.F. Pilatre de Rozier and the Marquis d'Arlandes, although the most famous early practitioners are probably the Montgolfier brothers.

ANSWER: hot-air **balloons**

[10] This man, then serving as the American ambassador, gave a first hand account of some of the early balloon experiments in France. His own inventions include bifocals, the lightning rod and a namesake stove.

ANSWER: Benjamin **Franklin**

[10] Thadeus Lowe's reconnaissance balloon *Enterprise* played a significant role in this Civil War battle. The Pennsylvania Reserves were activated after this battle, whose victors failed to pursue the enemy due to a squabble between Bonham and Longstreet.

ANSWER: **First Bull Run** [or **First Manassas**; prompt on "Bull Run"; prompt on "Manassas"]

<Bentley>

4. Inspired by a set of similarly titled compositions by Johannes Brahms, this work was published by Fritz Simrock soon after the *Moravian Duets*. For 10 points:

[10] Name these two sets of eight pieces for piano four-hands. The first set of these opens with a *furiant* in C Major.

ANSWER: Slavonic Dances [or Slovanské tance]

[10] The *Slavonic Dances* were composed by this Czech composer also known for his "*New World*" *Symphony*.

ANSWER: Antonín (Leopold) Dvorák

[10] Dvorak also composed one of these works nicknamed "Dumky" for its use of that ballad form.

Beethoven composed one of these works nicknamed "Archduke".

ANSWER: piano trio [prompt on "trio"]

<Chonai>

5. This novel opens with Cedric of Rotherwood disinheriting his son for falling in love with Lady Rowena and features a scene in which the Black Knight reveals himself to be the returned King Richard I. For 10 points:

[10] Name this Walter Scott novel whose title Saxon knight defeats Brian Bois-Guilbert to save Rebecca from being burned for being a witch.

ANSWER: Ivanhoe

[10] This is the name Ivanhoe adopts during the tournament where he defeats The Black Knight.

ANSWER: Desdichado [or the Disinherited One/Knight; or Unfortunate]

[10] In another scene from *Ivanhoe*, this green-clad character wins an archery contest by perfectly splitting Hubert's arrow with his own arrow. He leads a band of outlaws including the Friar of Copmanhurst.

ANSWER: Robin of Locksley [accept either underlined portion; accept Robin Hood]

<Chonai>

6. This protege of David Ben-Gurion became the Secretary General of the Mapai Party in 1966. For 10 points each:

[10] Identify this one-time Milwaukee resident who served between Levi Eshkol and Yitzhak Rabin as the 4th Prime Minister of Israel in 1969.

ANSWER: Golda Meir [or Goldie Mabovitch or Goldie Myerson]

[10] Golda Meir was criticized for not being prepared for this conflict, often named for a Jewish holiday. The first oil embargo was launched due to US aid to Israel in this war.

ANSWER: The 1973 Arab-Israeli War [or the Yom Kippur War; or the October War; or the Ramadan War; or the Fourth Arab-Israeli War]

[10] In the earlier Six Day War, fifteen ships stranded in the Suez Canal became known as the fleet of *this* color. The legendary ruler Huangdi is often identified with this color.

ANSWER: Yellow Fleet

<Bentley>

7. The narrator of the novel in which this character appears states that "all of Europe contributed to the making of" him. For 10 points each:

[10] Name this ivory trader whose report to the International Society for the Suppression of Savage Customs ends with an exhortation to "exterminate all the brutes!" and is discovered by Marlow.

ANSWER: Mr. "Mistah" **Kurtz**

[10] This Polish-British author of *Heart of Darkness* commented on the decline of colonialism in his short story "An Outpost of Progress".

ANSWER: Joseph **Conrad** [or Jozef Teodor Konrad **Korzeniowski**]

[10] Conrad collaborated on three works -- *The Inheritors*, *Romance*, and *The Nature of a Crime* -- with this English author of the *Parade's End* tetralogy.

ANSWER: Ford Madox **Ford** [accept Ford Madox **Hueffer** or Ford Hermann **Hueffer**]

<Kothari>

8. Along with chitin, this is one of the toughest biological substances, consisting of a series of coiled coil dimers. For 10 points each:

[10] Name this protein which is found in hair and nails. Mutations in the 5 and 14 varieties of this protein cause epidermolysis bullosa simplex.

ANSWER: **keratin**

[10] Keratin bundles form these components of the cytoskeleton. Vimentin, desmin, and GFAP can also form these filaments, which are larger than actin but smaller than microtubules.

ANSWER: **intermediate** filaments

[10] These are the intermediate filaments found on the inner surface the nucleus. They are phosphorylated and disassemble during mitosis and they are mutated in Hutchinson-Gilford progeria.

ANSWER: **lamins** [do NOT accept **laminINs**]

<Morlan>

9. In January 2013, Attawapiskat Chief Theresa Spence held a hunger strike near Parliament Hill in this country. For 10 points each:

[10] Name this country, where the Assembly of First Nations joined the Liberals and the NDP in calling for Stephen Harper's government to respect Aboriginal treaty rights.

ANSWER: **Canada**

[10] Spence's hunger strike has inspired this Aboriginal protest movement, which has called for Canada's Governor General to participate in negotiations as the representative of the Crown, the traditional guarantor of Aboriginals' ignored rights.

ANSWER: **Idle No More**

[10] One of the most vocal backers of Idle No More has been this former Liberal prime minister, whom Harper defeated and replaced in Canada's 2006 general election.

ANSWER: Paul **Martin**

<Liao>

10. Answer some questions about radiation, for 10 points each.

[10] These particles, equivalent to a helium nucleus, consist of two protons and two neutrons. They are particularly dangerous when ingested, since they are typically blocked by skin.

ANSWER: **alpha** particles

[10] Radiation detectors frequently contain one of these transparent materials, which absorb radiation and emit a larger amount of light, which can be detected by a PMT.

ANSWER: **scintillators**

[10] Materials that are good shields of radiation typically have high values of this process' namesake coefficient. More generally, it refers to a reduction in the flux intensity in a medium.

ANSWER: **attenuation** [do not accept or prompt on "absorption"]

<Nutter>

11. This building's architect avoided the legal requirement to include setbacks in its design by having it occupy only a quarter of its lot. For 10 points:

[10] Name this 24-story, blue-green box-shaped skyscraper in New York. It was designed by Gordon Bunshaft and is located at 390 Park Avenue.

ANSWER: **Lever House**

[10] The Lever House sits across from this other building, whose architect, Mies van der Rohe, used non-structural bronze-toned I-beams to suggest its structure and mandated that the blinds have only three fixed positions.

ANSWER: **Seagram Building**

[10] The Seagram Building was designed by Mies van der Rohe with help from this other architect of the Crystal Cathedral and the Glass House.

ANSWER: Philip **Johnson**

<Chonai>

12. One of these values was introduced as a result of the Stern-Gerlach experiment. For 10 points each:

[10] Name these numbers which represent the state of electrons in atoms. Electrons in atoms are usually described with four of them.

ANSWER: **quantum** numbers

[10] This quantum number symbolized l represents the shape of an orbital in which an electron is found. It equals one for p orbitals.

ANSWER: **azimuthal** quantum number [or **angular momentum** quantum number]

[10] According to one of these rules governing electronic transitions, a transition is allowed only if the change in azimuthal quantum number equals plus or minus one. According to one of these statements named for Laporte, transitions where parity is conserved are forbidden.

ANSWER: **selection** rules

<Silverman>

13. A woman named Eulalia comes to realize just how benevolent and wonderful her husband Moreland is in one example of this literary genre, Caroline Lee Hentz's *The Planter's Northern Bride*. For 10 points each:

[10] Identify this nineteenth-century literary genre, also exemplified by William Gilmore Simms's *The Sword and the Distaff*. Novels in this genre were characterized by their desire to rebut another author's 1852 bestseller.

ANSWER: **anti-Tom** novels/literature/etc. [or **plantation** novels/literature/etc.; accept explanatory equivalents like "**responses to *Uncle Tom's Cabin***" or "**works written in opposition to *Uncle Tom's Cabin***"; prompt on "pro-slavery literature" or equivalents that don't mention "Tom" or *Uncle Tom's Cabin*]

[10] Anti-Tom novels were, as the name might suggest, the product of pro-slavery Southern writers' outraged reaction to this author's novel *Uncle Tom's Cabin*.

ANSWER: Harriet Beecher **Stowe** [or Harriet **Beecher**]

[10] This villainous fiend from *Uncle Tom's Cabin*, possibly based on a man from Louisiana named Meredith Calhoun, owns a plantation and takes Cassy as his mistress. At the end of the novel, he orders his overseers to murder Tom.

ANSWER: **Simon Legree** [accept either underlined name]

<Cheyne>

14. Identify the following about some popes named Clement, for 10 points each.

[10] Clement XIV abolished this religious order in 1773. This order was founded by Ignatius of Loyola and was a key force in the Counter-Reformation.

ANSWER: **Jesuits** [or **Society of Jesus** or **Societas Iesu**]

[10] Clement XI got into a conflict with Victor Amadeus II of this royal family over control of Sicily. Founded by Umberto the White-Handed in the 11th century, this family would later rule over all of Italy beginning with Victor Emmanuel II.

ANSWER: House of **Savoy** [or Casa di **Savoia**]

[10] Clement VII was a staunch ally of this Valois French king, who defeated Clement's cousin Leo X and his Swiss allies at the Battle of Marignano.

ANSWER: **Francis I** [or **Francois I**; prompt on **Francis**; prompt on **Francois**]

<Bentley>

15. Immanuel Kant tried to show that this type of truth has a synthetic subtype exemplified by " $7 + 5 = 12$ " and other mathematical truths. For 10 points each:

[10] Name this type of truth designated by a Latin term, which can be learned or derived without any empirical experience.

ANSWER: **a priori** truth

[10] This Kant treatise asked whether synthetic *a priori* truths are possible. The first in a series of three, it tried to show when human deduction oversteps its bounds.

ANSWER: **Critique of Pure Reason** [or **Kritik der reinen Vernunft**]

[10] Saul Kripke studied this other set of truths, which must be true in all possible worlds or conceivable situations. They might not all be knowable *a priori* and make up the second subject of his most famous Princeton lecture series.

ANSWER: **necessary** truths [or **necessities**; accept word forms]

<Jackson>

16. This work claims its subject relied on "self-invented clichés" and "officialese" to justify his powerful position. For 10 points each:

[10] Name this 1963 book that used the phrase "banality of evil" to describe the title man's lack of violent motivation for his political and war crimes.

ANSWER: **Eichmann in Jerusalem: a Report on the Banality of Evil**

[10] This German-American thinker wrote about the Nazis' megalomania in *Origins of Totalitarianism* several years before writing *Eichmann in Jerusalem*.

ANSWER: Hannah **Arendt**

[10] Since the Nazis were so power-hungry, Arendt considered Jewish identity to be incidental to the existence of this event. This massacre led to the deaths of over six million Jews between 1939 and 1945 in places like Auschwitz and Treblinka.

ANSWER: the **Holocaust** [or the **Shoah**]

<Spencer>

17. Answer the following about predicate logic, for 10 points each.

[10] Expressions in predicate logic are comprised of sentence symbols and logical symbols. One such logical symbol is this one, which is only true if both of the inputs are true. It is commonly distinguished from OR.

ANSWER: logical **AND** [or logical **conjunction**]

[10] Some expressions do not make sense in predicate logic, such as " $p \wedge q$ " [read as: "p and and q"]. Such statements lack this property, which is the equivalent of being syntactically correct for a logical system.

ANSWER: **well-formed**

[10] In logic, binding a variable over a universe of discourse is done using these operators. They include the existential one and the universal one.

ANSWER: **quantifiers**

<Jose>

18. The secret policeman Bretschneider is eaten by his own dogs in this novel, whose title character gives a dog owned by Colonel Kraus to Lieutenant Lukas, which results in Lukas getting transferred to the front lines. For 10 points each:

[10] Identify this Jaroslav Hasek novel about the feeble-minded Josef, a dealer in stolen dogs who at one point serves as an altar boy for the chaplain, Otto Katz.

ANSWER: *The **Good Soldier Svejk*** [or *Osudy **Dobreho Vojaka Svejka** ve Svetove Valky*; or *The Fateful Adventures of the **Good Soldier Svejk** During the World War*]

[10] This writer, who like Hasek wrote in Czech, depicted Captain van Toch's discovery of an intelligent race of lizards on an island near Sumatra in his novel *War with the Newts* and penned a play whose protagonist is Helena Glory.

ANSWER: Karel **Capek** ["CHAH-peck"]

[10] That Capek play, *R.U.R.*, contains the first appearance of this word, used to indicate the artificial people constructed in Harry Domin's factory. It was coined by Capek's brother Josef.

ANSWER: **robots** [or *Rossum's Universal **Robots***]

<Bentley>

19. This faith's shrines have an inner *honden* sanctum, and are attended to by female *miko* and male *kannushi*. For 10 points each:

[10] Name this national religion of Japan, which reveres gods and spirits of nature called *kami*.

ANSWER: **Shintoism** [or **Kami-no-michi**]

[10] Shinto shrines are delineated by wooden examples of these structures with two crossbars, called *torii*. These objects "of Prayer" name the most common prayer book in Reform Judaism.

ANSWER: **gates**

[10] This object, one of Japan's three imperial regalia, is allegedly housed in the Ise Shrine, a holy site in Shinto. This object was used to help lure the sun goddess Amaterasu out of a cave.

ANSWER: the sacred **mirror** [or Yata no **Kagami**]

<Jackson>

20. During the 1980s, this country embraced the flat-tax policies of "Rogernomics". For 10 points each:

[10] Identify this site of the Taranaki and Musket wars, ruled by colonial governor George Grey by the terms of an 1840 treaty.

ANSWER: **New Zealand** [or **Aotearoa**]

[10] New Zealand is home to these Polynesian people, whose leaders have included Te Wherowhero.

ANSWER: **Maori** People [or **tangata whenua**]

[10] The *peruperu* form of this ritualistic Maori dance was performed before setting out for war. A close homophone of this term identifies a southern Chinese ethnic group that formed the initial core of the Taiping Rebellion.

ANSWER: **Haka** [or **Hakka**, which will sound the same]

<Bentley>

21. OraQuick is a recent screening tool for this virus, whose coat contains a complex of gp120 and gp41 proteins that form a spike. For 10 points each:

[10] Name this lentivirus which causes AIDS.

ANSWER: **HIV** [or **human immunodeficiency virus**]

[10] AIDS is tracked by counting the number of T cells expressing this surface molecule. Along with CD3, this molecule is expressed by helper T-cells.

ANSWER: **CD4** [or **cluster of differentiation 4**]

[10] This AIDS-defining illness is caused by a protozoan carried by cats. It can cause both encephalitis and chorioretinitis and can also cross the placenta.

ANSWER: **toxoplasmosis** [accept ***Toxoplasma gondii*** or ***T gondii***]

<Morlan>

22. One member of this family, an enemy of David I, constructed Barnard Castle. For 10 points each:

[10] Identify this family whose final prominent member, Edward, was a claimant to the throne of Scotland held by the House of Bruce.

ANSWER: **Baliol** [or **Balliol**]

[10] Scotland was invaded in 1296 by an English king of this name, nicknamed Longshanks. This name was also borne by an English king known as "the Confessor."

ANSWER: **Edward**

[10] Edward I removed this object and brought it to England, where it was placed under the coronation chair. This rock was traditionally used to crown Scottish monarchs.

ANSWER: **Stone of Scone** [or **Stone of Destiny** or **Lia Fail**]

<Bentley>

23. Identify the following about authors published in *The New Yorker*, for 10 points each.

[10] This Shirley Jackson short story depicts a small New England village gathering for a ritual that ends with Tess Hutchinson's death in a human sacrifice by stoning.

ANSWER: "The **Lottery**"

[10] Suburban customs were parodied in many of this author's stories, including the grim story "The Swimmer," which ends with the mental breakdown of protagonist Neddy Merrill. He also wrote *The Wapshot Chronicle*.

ANSWER: John William **Cheever**

[10] This man wrote numerous *New Yorker* stories, but is better remembered now for his novels, examples of which include his book about a presidential candidate called *Ten North Frederick* and his novel about Gloria Wandrous, *Butterfield 8*.

ANSWER: John Henry **O'Hara**

<Cheyne>