

Packet 1

Tossups

1. **Keith Hopkins found that the nobility of this city had a very high level of social mobility; he published that finding in *Death and Renewal*. Debt-bondage contracts in this city, like many acquisitions of property, were customarily secured with “scales and bronze.” A leader from this city supposedly analogized its people to the body’s limbs and its leaders to the stomach in a legendary speech that ended the first of five instances in which this city’s (*) entire populace of commoners left *en masse*. Over several centuries, two groups in this city struggled for social position in the Conflict of the Orders. Aspiring politicians in this city held a sequence of offices and ended their career as censors as part of the *cursus honorum*. For 10 points, name this city whose Republic began with the overthrow of Tarquin the Proud.**

ANSWER: **Rome** [or **Roma**; accept **Roman Republic**]

<Ancient History, WA>

2. **A word from this language denotes a style of one-stanza religious music exemplified by the hymn “O Gladsome Light.” Music theorists who wrote in this language developed a “Greater Perfect System” that spans fifteen pitches. The most common musical notation prior to the five-line staff was ultimately named after this language’s word for “breath.” Music theorists who wrote in this language developed a tuning system based on the (*) pure perfect fifth, corresponding to a frequency ratio of 3-to-2, and derived the perfect fourth from a 4-to-3 ratio. Theorists who wrote in this language developed a standard system of seven musical modes, which they named after people who spoke varieties of this tongue, such as Aeolians and Dorians. For 10 points, name this language that provides the name for the *Kyrie* (“KEE-ree-ay”) section of a mass.**

ANSWER: **Greek** [or **Ellinika**; accept any variety of **Greek** such as Ancient, Byzantine, or Koine] (The one-stanza hymn is a *troparion*.)

<Classical Music/Opera, WA>

3. **A paper by J. A. Tropp et al. solves the sparse approximation problem using one of these algorithms called orthogonal matching pursuit. These algorithms will give a constant factor approximation of 1 minus 1-over-e if the utility function is monotone and submodular. The fractional knapsack problem, but not the zero-one knapsack problem, can be solved using an algorithm of this type. Since an undirected weighted graph is a weighted matroid, one of these algorithms is (*) guaranteed to give the minimum spanning tree. Dynamic programming is used when these algorithms cannot solve a problem with optimal substructure. Huffman coding, a compression algorithm, is classified as one of these algorithms because it chooses the two characters with the lowest frequencies first. For 10 points, name these algorithms that make locally optimal decisions at each step.**

ANSWER: **greedy** algorithms

<Other Science: Computer Science, AK>

4. **This character claims that “a good chemist is worth twenty poets” after an aristocrat laments that Germany no longer produces such poets as Goethe. This character remarks “You speak French to me; I reply in Latin” during a scene in which he walks ten paces and draws a line in the ground. This character quivers while pressing his head against a window pane after making his first love confession to a widow to whom he had gifted a chemistry textbook. This man (*) treats the leg of a man whom he shot in a duel over Fenechka (“f’YEN-yetch-kah”); that man is named Pavel Petrovich. He cuts himself with a scalpel while performing an autopsy and contracts a fever that kills him shortly after a final visit by his love Madame Odintsova. For 10 points, name this friend of Arkady Kirsanov, the nihilistic protagonist of Ivan Turgenev’s *Fathers and Sons*.**

ANSWER: Yevgeny Vasilievich **Bazarov** [or **Yevgeny Vasilievich** Bazarov or **Eugene Vasilievich** Bazarov; prompt on **Yevgeny** or **Eugene**; do not accept or prompt on “Yevgeny Onegin” or “Eugene Onegin”]

<Long Fiction, WA>

5. This country's long-term GAP development program, which targets its southeastern regions, contributed to fiscal problems that caused the *Guinness Book of World Records* to label its currency the world's least valuable currency from 1995 to 2004. With its western neighbor, this country engaged in "earthquake diplomacy" after a pair of devastating earthquakes in 1999. Its military carried out a "coup by memorandum" in 1971 and two more coups in (*) 1960 and 1980, and it also plotted the "Sledgehammer" coup when the mayor of its largest city was elected president in 2003. This country's oldest living party, the Republican People's Party, still uses the "Six Arrows" symbol created by its founder, whose lieutenant İsmet İnönü ("eese-MET ee-nuh-NEW") served his last term as Prime Minister in the 1960s. For 10 points, name this country where a Kemalist military coup took place in 2016.

ANSWER: **Turkey** [or Republic of **Turkey**; or **Türkiye** Cumhuriyeti]

<World History, WA>

6. A study by C. A. Faraone highlights the use of some of these objects called *kolossoi* in magic rituals during Ancient Greek everyday life. Some of these objects called *dogu* may have been used in ancient Shinto. In one tradition, an example of these objects called called a *tithu* is given to girls over two years old. In Japan, examples of these objects are central to the festival of Hinamatsuri, including ones that grant luck called (*) *daruma*. The Hopi typically use cottonwood to create examples of these objects to represent their immortal spirits called *kachinas*. European folk magic involved casting spells on one of these objects called a poppet. Haitian religion [emphasize] *does not* actually often involve sticking needles into "voodoo" examples of, for 10 points, what objects?

ANSWER: **dolls** [accept kachina **dolls** or voodoo **dolls** or clay **dolls**; accept **effigies** or **figurines**; accept **poppets** before "poppet," but do not accept or prompt on "puppet" – ask the player to spell if you're not sure; prompt on **pottery**; prompt on **toys**; prompt on "good **luck charm**" until "luck" is read]

<Religion, WA>

7. In a painting by this artist featuring four youths, the one at the left reaches for some grapes, while the one who looks at the viewer sits directly behind a lutenist. This artist's friend Mario Minniti modeled for many of his paintings of youths, including a painting of a man offering his hand for a palm reading titled *The Fortune Teller*. A possible self-portrait by this artist shows a mythical figure with vine leaves in his hair who holds a (*) wine glass with two left fingers and stares at the viewer. Contemporaries claimed that this artist of *The Musicians* and *Bacchus* showed a "boy, that laid with him" in his painting of a nude, victorious Cupid titled *Amor Vincit Omnia*. This artist's tenebrist ("TEN-uh-brist") masterpieces include *The Supper at Emmaus* ("eh-MAY-us"). For 10 points, name this master of *chiaroscuro* ("KYAH-ro-SKOO-ro") who painted *The Calling of St. Matthew*.

ANSWER: **Caravaggio** [or Michelangelo **Merisi** da Caravaggio]

<Painting/Sculpture, WA>

8. A member of this family tried to elevate the legal status of his duchy by forging a document supposedly signed by Nero called the *Privilegium maius* ("pree-vee-LAY-jee-um MY-us"). The saying "those kingdoms that Mars gives to others, Venus gives to thee" was coined after a member of this family tried to marry the rich widow Anne of Brittany. Sigismund married his only daughter, Elizabeth, to a member of this family who became Albert V. Another member of this family, (*) Philip the Handsome, was married to Joanna the Mad. An unprecedented French alliance with the Ottoman Empire was forged to combat this house's influence, as its rule expanded over Europe thanks to marriages arranged by Maximilian I. For 10 points, name this family that unified the titles of King of Spain and Holy Roman Emperor under Charles V.

ANSWER: House of **Hapsburg** [or House of **Habsburg**; accept Maximilian von **Hapsburg**]

<Continental post-600 History, WA>

9. In a story titled for this war, a “self-made man” named Mr. Alsuga attempts to teach “Old Tyme” whittling skills to combat gang vandalism. In that story, the founder of Burn’n’Learn pokes the narrator with a cigar while discussing investing in a business based on this war. In a story set during this war, a soldier looks for a moment at his “unsteadfast footing” before fixing his eyes on a piece of “dancing driftwood” in swirling waters. A (*) theme park based on this war is “in Bad Decline” in a story by George Saunders. The protagonist of a story set during this war travels thirty miles to see his wife after dodging bullet fire in a river. In a twist, that story set during this war ends when it turns out that a saboteur’s escape saga was actually a daydream shortly before his hanging. For 10 points, what war is the setting of Ambrose Bierce’s “An Occurrence at Owl Creek Bridge?”

ANSWER: American Civil War
<Short Fiction, JC>

10. This figure’s main feat is the best-known version of a trope that was also accomplished in Danish legend by Palnatoki; some mythographers consider both of those figures to be reflections of the god Ullr. The account of this figure given by Aegidius Tschudi (“CHOO-dee”) was used by a playwright who recast this figure as central to a vow taken in a meadow known as the Oath of the Rütli. This man refused to place his (*) hat on a pole in a show of disrespect for a local bailiff. After escaping prison, this man hid in a ravine with a second piece of ammunition that he had saved, and used it to kill Alfred Gessler. In his most famous feat, this man used a crossbow to shoot an apple on his son’s head. For 10 points, name this Swiss folk hero who titles an opera by Gioachino Rossini.

ANSWER: William Tell [or Wilhelm Tell or Guillaume Tell or Guglielmo Tell]
<Mythology, WA>

11. For a centrosymmetric molecule, normal modes in which this quantity changes will have a character under inversion of negative one and have ungerade (“OON-guh-RAH-duh”) symmetry, which explains the rule of mutual exclusion. This quantity changes in vibrational modes that transform linearly with position, while vibrational modes that change as a quadratic function of position change a related (*) tensor quantity instead. The change in this quantity divided by the electric field strength gives the polarizability. This quantity must change during a vibration for it to be active in infrared spectroscopy. This quantity is often shown as an arrow in the direction of a bond, and its net value is zero for nonpolar molecules. For 10 points, name this quantity that, for a bond, is equal to the partial charge times distance.

ANSWER: electric dipole moment [or transition dipole moment; do not accept or prompt on “dipole”]
<Chemistry, AK>

12. Jenny Nordberg went undercover in this city to investigate a common practice of raising girls as boys, which resulted in her book on this city’s “underground girls.” Recently, security in this non-Mesopotamian city’s fortified Green Zone has been ramped up after events such as the January 2018 siege of this city’s Intercontinental Hotel and an ambulance explosion that killed dozens. In the deadliest attack on journalists since the *Charlie Hebdo* (“shar-LEE eb-DOH”) massacre, nine journalists and many others were killed in (*) suicide bombings here on April 30, 2018. At the end of June 2018, the government based in this city called off a unilateral ceasefire that it had maintained since Eid ul-Fitr. This capital city has continued to be a hub of diversity with many Hazara, Tajik, and Pashtun residents under Ashraf Ghani’s government. For 10 points, name this capital of Afghanistan.

ANSWER: Kabul [accept *The Underground Girls of Kabul*]
<Other/Misc Academic, WA>

13. Boris Worm coined the “hyper” variety of this concept to describe complex interactions involving humans across different habitats. Dr. Robert Paine proposed this concept while studying rocky intertidal zones at the

University of Washington. Based on the work of Scott Mills, Power et al. attempted to operationalize the definition of this concept with a measure of “community importance.” In Makah Bay, the members of the (*) *Pisaster* genus are described as this type of species due to their role in controlling California mussel populations. The grey wolf is an example of this type of species that was controversially reintroduced to Yellowstone National Park in the 1990s. For 10 points, name this type of species that is critical to the normal functioning of an ecosystem because of its disproportionate effect on its environment relative to its abundance.

ANSWER: **keystone species** [accept **keystone** after “species” is read; prompt on **apex predator** by asking “what is their role as apex predators?”]

<Biology, SO>

14. The ghost of one of these animals wanders around Baghdad and torments the soldier Kev in a Rajiv Joseph play. To escape the metaphorical “Rooster Coop,” a character who is equated with one of these animals beats his landlord to death with a bottle. The sight of one of these animals staring into the ocean reminds a boy of the story of a god opening his mouth and showing his mother the universe. A letter to the (*) Chinese Premier Wen Jiabao (“wun jyah-bow”) frames a novel titled for one of these animals. One of them is the first to recognize the carnivorous danger of an island of algae filled with meerkats. At the end of a novel, a boy hints that one of these animals that killed a hyena on a lifeboat actually represents himself. Aravind Adiga titled a novel after the “white” type of, for 10 points, what animal exemplified by Richard Parker in Yann Martel’s *The Life of Pi*?

ANSWER: **tiger** [accept *Bengal Tiger at the Baghdad Zoo* or *The White Tiger*]

<Misc. Lit, JC>

15. When Congress forced through a bill preventing this President from appropriating money for coast guard ships without approval, he became the first president to have a veto overridden. This president’s foreign policy accomplishments include securing the “unequal treaty” of Wanghia (“wong-hyah”) with the Qing dynasty. The last member of this man’s first Cabinet to [emphasize] *not* resign negotiated a treaty with Alexander Baring. Many of his foreign policy plans were foiled when a cannon nicknamed (*) *Peacemaker* exploded, killing several dozen people in the USS *Princeton* disaster. This man signed a bill offering the annexation of Texas three days before leaving office, having been encouraged by the election of James Polk as his successor. For 10 points, name this president nicknamed “his Accidency” for obtaining the office after the death of William Henry Harrison.

ANSWER: John **Tyler**

<US History, NB>

16. The leading textbook on managing this phenomenon was authored by former wrestler John Bonica. The Joint Commission promoted the treating of this phenomenon as the “fifth vital sign.” TENS (“T-E-N-S”) therapy treats this phenomenon with pulses from electrodes. It’s not epilepsy, but this phenomenon is also treated with the medications pregabalin (“pre-GAB-uh-lin”) and gabapentin (“gab-uh-PEN-tin”). A common somatic disorder is a type of this phenomenon called (*) psychalgia (“psych-AL-jee-uh”). The “neuropathic” type of this phenomenon affects about one in ten Americans, while about one in three experience its “chronic” type. The Wong–Baker scale uses a set of smiling and frowning faces to assess levels of this phenomenon. Like stress, this phenomenon is managed by palliative care. For 10 points, identify this type of damaging stimulus that opiates may be called “killers” of.

ANSWER: **pain** [accept Wong–Baker Faces **Pain** Rating Scale; accept neuropathic **pain** or chronic **pain** or **pain** management or **pain**killers]

<Social Science: Psychology, WA>

17. To reduce plane wave basis sets, “norm-conserving” and “ultrasoft” examples of these functions may be used in atomic physics. A general type of these functions is written as [read slowly] “quantity e to the negative

k times m times r ,” multiplied by a constant and divided by r , and changes from exhibiting a short-range to a long-range nature as the mass term approaches zero. In the presence of an electric field, an exponential damping term multiplies one of these functions called a “screened (*) Coulomb” one, which can be named for Hideki Yukawa. A conservative vector field can be written as the gradient of one of these functions: for example, the integral of the gravitational force between two points defines this function for gravity. For 10 points, name these functions that represent the energy that a system has as a result of its configuration, as opposed to “kinetic” energy. ANSWER: potentials [accept pseudopotentials or Yukawa potentials or screened Coulomb potentials or scalar potential; accept potential energy after “energy,” but not before; prompt on scalar field]

<Physics, WA>

18. Cy Twombly quoted from a set of French poems about roses by this author on the right side of each painting in his *Rose* series. This poet punctuates descriptions of animals spinning past in a “blind and breathless game” with the line “And now and then there’s a white elephant” in his poem “The Carousel.” A poem by this author interprets an action as a “ritual dance around a center” of “mighty will” next to a “thousand” “constantly passing (*) bars.” Ocean Vuong’s “Torso of Air” responds to this poet’s line “You must change your life.” This author’s “thing-poems” include one that describes a creature “pacing in cramped circles” and one titled “Archaic Torso of Apollo.” For 10 points, name this poet of “The Panther” who asked “Who, if I cried out, would hear me among the angelic orders?” in the *Duino Elegies*. ANSWER: Rainer Maria Rilke (“RILL-kuh”)

<Non-Epic Poetry, JC>

19. This philosopher’s late work conceives of the world as composed of “simples” that relate through structure and compose “stuff” when given names. This philosopher referred to entities that are predicated and entities that can be substituted for, respectively, as entities that occur “as concept” and “as term.” This neutral monist (“MO-nist”) called propositions that are compounded using truth-function operators “molecular,” since they consist of multiple (*) “atomic” propositions. He created the distinction between phrases that do specify the unique object to which they assign properties and those that do not as “indefinite” and “definite” descriptions. With the founder of process philosophy, this man axiomatically constructed set theory. “On Denoting” is by, for 10 points, what man who co-wrote *Principia Mathematica* with Alfred North Whitehead? ANSWER: Bertrand Russell [accept Russell’s paradox]

<Thought, WA>

20. A 2015 film from this country that was shot in a square aspect ratio was described by Claude Lanzmann as an “anti-*Schindler’s List*” and won the Academy Awards Best Foreign Language Film. This is the home of the director of *Son of Saul*, as well as the director of a black-and-white film that opens with a 7-minute-long tracking shot of cows roaming through a muddy village. A city in this country titles a film that features a first-person tandem sled chase from a monastery to a luge track. This home country of the director of (*) *Sátántangó* (“SHAH-tahn-tahn-go”) is referenced in the title of a film in which the painting *Boy with Apple* is inherited by a citizen of the Republic of Zubrowka (“zoo-BROV-kuh”). That film titled for this country’s capital stars Ralph Fiennes (“rafe fines”) as the concierge Gustave H. For 10 points, name this country whose capital titles Wes Anderson’s 2014 film *The Grand Budapest Hotel*. ANSWER: Hungary [or Magyarország]

<Other Art: Film, AK>

Bonuses

1. This act was drafted by Wayne Wheeler and named after the Chairman of the House Judiciary Committee. For 10 points each:

[10] Name this Act that prohibited the production, transport, and sale of a certain class of substances, but did not explicitly prohibit their consumption.

ANSWER: **Volstead** Act [prompt on National Prohibition Act; do not accept or prompt on “prohibition” or “Eighteenth Amendment”]

[10] The Volstead Act enforced the provisions specified by the Eighteenth Amendment, which was overturned by this other Amendment.

ANSWER: **Twenty-First** Amendment to the US Constitution [or Amendment **21**]

[10] The Twenty-First Amendment was ratified by state conventions in 38 states, while only this state explicitly rejected it. This state’s *Dispensary* was a state-run monopoly on alcohol sales created by an extremely bigoted governor nicknamed “Pitchfork.”

ANSWER: **South Carolina** [or **SC**] (The governor was “Pitchfork” Ben Tillman.)

<US History, NB>

2. Objects in which this process has been going on for longer periods of time tend to have greater metallicity, as they have reduced quantities of hydrogen and helium. For 10 points each:

[10] Name this process described by the widely-cited B2FH (“B-squared-F-H”) paper. This process, which produces lithium, beryllium, and heavier elements, may occur via fusion or other processes in stars.

ANSWER: stellar **nucleosynthesis** [prompt on descriptive answers such as creating nuclei or forming new nuclei or forming atoms; do not accept or prompt on “Big Bang nucleosynthesis”]

[10] A major pathway for stellar nucleosynthesis via fusion is a “chain” named for these positively-charged particles found in the nucleus.

ANSWER: **protons**

[10] Heavy nuclei are produced in stars via neutron capture in processes that are named for these two letters; those processes are distinguished by the speed at which they occur and the radioactivity of their end products.

ANSWER: **r** AND **s** [accept **r**-process AND **s**-process]

<Other Science: Astronomy, WA>

3. This poet invokes Lacan and Kripke, claiming that “a word is elegy to what it signifies” and that “All the new thinking is about loss,” before recalling the myriad metaphysical connections between him and a woman. For 10 points each:

[10] Name this author and Berkeley professor who tries to disentangle “the bramble” of the word “*blackberry*,” eventually ending with the words, “*blackberry blackberry blackberry*,” in the poem “Meditation at Lagunitas.”

ANSWER: Robert **Hass**

[10] Robert Hass has produced translations of poems in this form, such as one that mourns, “This world of dew / is the world of dew / And yet, and yet—” by Kobayashi Issa. A frog jumps into a pond in another one of these poems.

ANSWER: **haikus**

[10] This poet called frogs “great slime-kings” and wrote about “our palms sticky as Bluebeard’s” in the poem “Blackberry-Picking.”

ANSWER: Seamus **Heaney** [or Seamus Justin **Heaney**]

<Non-Epic Poetry, JC>

4. This photographer’s *Standing Nude Male with Pipes*, which is part of a series of photographs of his naked students, was later adapted into his painting *Arcadia*. For 10 points each:

[10] Name this 19th-century American photographer who worked with Eadweard Muybridge (“Edward MY-bridge”) and conducted a *Study in Human Motion* in which he photographed a naked man jumping.

ANSWER: Thomas **Eakins** (“AY-kins”)

[10] Eadweard Muybridge used a zoopraxiscope to demonstrate that Sallie Gardner, one of these animals, could lift all four of its legs off the ground while running.

ANSWER: a **horse** [or ***Equus caballus***]

[10] Long before Muybridge and Eakins, a member of this family developed silver nitrate photograms. That man’s father Josiah was a potter who designed an anti-slavery medallion featuring the line “Am I not a man and a brother?”

ANSWER: **Wedgwood** [accept Thomas **Wedgwood** or Josiah **Wedgwood**]

<Other Art: Misc Visual, AK>

5. The interaction of light with one of these systems can drive an oscillation pattern called a Rabi (“RAH-bee”) cycle. For 10 points each:

[10] Identify this general type of quantum system exemplified by the spin states of an atom with spin equal to one-half, such as a standard hydrogen atom. A description is acceptable.

ANSWER: **two-level** system [or **two-state** system; accept descriptions like a system that only has an **excited** state and a **ground** state, or a system with **two** quantum **states**]

[10] Two-level systems that are optically influenced by light can be described by the Einstein A and B coefficients, which describe both stimulated emission and a kind of emission described by this adjective. A physical process or reaction will occur in a manner described by this adjective when the Gibbs free energy is negative.

ANSWER: **spontaneous** [accept word forms such as **spontaneously**]

[10] If a two-level system is in thermodynamic equilibrium, the population of a given energy level is proportional to the Boltzmann factor, which equals the Euler (“OY-ler”) constant raised to an exponent. Express the exponent of the Boltzmann factor in terms of the energy E , Boltzmann’s constant k , and temperature T . You have 10 seconds.

ANSWER: **negative E over kT** [accept equivalents such as **negative E divided by k times T** ; do not accept or prompt on “ E over kT ” or equivalents, as the negative sign is important]

<Physics, WA>

6. A series of four essays by Brian O’Doherty popularized the use of phrase “white cube” to describe the minimalism of these places. For 10 points each:

[10] Name these places. An O’Doherty essay titled for these places “as a Gesture” discusses how one of these places was presented by itself in Yves Klein’s (“eev klyne’s”) *The Void*, which was parodied by the French artist Arman with his piece *The Full*.

ANSWER: art **gallery** [or **museums**; or equivalents; or the Iris Clert **Gallery**]

[10] O’Doherty also discusses this artist’s creation of the installations *1,200 Coal Bags* and *Mile of String* for two Surrealist exhibitions. One of this Dadaist’s “readymades” is a urinal signed “R. Mutt.”

ANSWER: Marcel **Duchamp**

[10] O’Doherty groups this artist’s recreation of a bedroom with pieces by Edward Kienholz and George Segal. This Pop artist is known for his giant versions of mundane objects, such as *Lipstick (Ascending) on Caterpillar Tracks*.

ANSWER: Claes **Oldenburg**

<Painting/Sculpture, AK>

7. The line “Our nada who art in nada” in this author’s story “A Clean, Well-Lighted Place” reflects his belief in an uncaring universe. For 10 points each:

[10] Name this author whose prototypical male heroes include Nick Adams, Santiago, and Jake Barnes.

ANSWER: Ernest **Hemingway** [or Ernest Miller **Hemingway**]

[10] In Hemingway studies, this term refers to the archetypal man who confronts the “nada” of existence and the ultimate “nada” of death with indifference, “grace under pressure,” insomnia, and alcoholism.

ANSWER: Hemingway **code hero** [prompt on Hemingway hero]

[10] Grace under pressure doesn't imply mental health. This code hero and ambulance driver reacts to the "nada" of his lover Catherine's death during childbirth by walking back to the hotel in the rain in a celebrated final scene.

ANSWER: **Frederic Henry** [accept either name; prompt on the narrator or protagonist of *A Farewell to Arms*]

<Long Fiction, JC>

8. Growing up in a "risky household," in which a child may be subjected to abuse, neglect, and/or trauma, can affect the child's health outcomes later in life. For 10 points each:

[10] Individuals raised in a risky household show higher risk for dysfunction of the HPA axis, which consists of the hypothalamus, anterior pituitary, and this set of paired glands located above the kidneys.

ANSWER: **adrenal** glands or **adrenals** [or **adrenal** cortex]

[10] Individuals with short/short alleles for the 5-HTTLPR polymorphism of the SLC6A4 transporter for this substance are more susceptible to depression if they come from a risky family.

ANSWER: **serotonin**

[10] Those with the "low-activity" 2R and 3R variants of this X-chromosome gene, which codes for a flavoenzyme, show increased rates of antisocial behavior if raised in a risky household.

ANSWER: **MAOA** [accept **monoamine oxidase A**; prompt on warrior gene]

<Biology, JL>

9. This man was vilified as a "lily-livered sinical rogue" and "demi-human archbeast" by various newspapers for his public opposition to Christianity. For 10 points each:

[10] Name this vociferous proponent of Deism who released the first part of *The Age of Reason* while imprisoned in Paris, believing that he was about to be executed.

ANSWER: Thomas **Paine**

[10] Britain's leading 19th-century secularist was a man with this surname who published *The Reasoner* and coined the words "secular" and "jingo." A Prime Minister of New Zealand with this surname banned the testing of nuclear weapons within his country's territory and sent troops to fight in Vietnam.

ANSWER: **Holyoake** [accept George **Holyoake** or Keith **Holyoake**]

[10] Many people attribute the rise in secularism in Britain to the publication of this author's works on the origins of humanity, such as *The Descent of Man*. This naturalist sailed the world on the *Beagle*.

ANSWER: Charles **Darwin**

<British/CW History, WA>

10. Answer the following about the syntax of the sentence "I saw the concert that had the awesome Tupac hologram," for 10 points each.

[10] The phrase "that had the awesome Tupac hologram" is an example of this type of clause that cannot stand alone in a sentence, since it requires the presence of additional information, such as a subject.

ANSWER: **dependent** clause [or **subordinate** clause; or **relative** clause; or **adjectival** clause; prompt on sentence fragment]

[10] The verb "saw" in the sentence has two "roles" denoted by this Greek letter since it takes two arguments: the subject "I" and the object "the concert." In the IPA, this symbol denotes a [read slowly] voiceless dental fricative.

ANSWER: **theta** [accept **theta** role]

[10] The related *question* "What did I see the concert that had?" sounds ungrammatical because "the awesome Tupac hologram" is one of these structures from which *wh*-words ("W-H-words") like "what" cannot be extracted.

ANSWER: **island** [or complex **DP island**]

<Social Science: Linguistics, KL>

11. The founder of this tradition advocated contemplating the letters of the Torah to achieve a closeness with God known as *devekut* (“d’vay-KOOT”). For 10 points each:

[10] Name this Jewish tradition founded by the Baal Shem Tov. Members of this religious tradition commonly refer to their leaders with the Yiddish word *rebbe* (“REB-ee” or “REB-uh”).

ANSWER: **Hasidic** Judaism [or **Hasidism** or **Chasidut**; prompt on Orthodox Judaism; do not accept or prompt on “Conservative Judaism”]

[10] The Baal Shem Tov’s disciple Dov Baer (“dohv bare”) used divine concealment to explain *tzimtzum* (“tseem-TSOOM”), a concept of introduced by Isaac Luria as part of this broad tradition of Jewish mysticism. An important text in this tradition is the *Zohar*.

ANSWER: **kabbalah**

[10] In the *Guide for the Perplexed*, Maimonides goes against traditional Rabbinic teaching by explicating the origins of this much older mystical movement through Ezekiel’s vision of a chariot composed of angels known as *chayyot* (“high-YOTE”) and *ophanim* (“oh-fah-NEEM”).

ANSWER: **Merkabah** mysticism [or **Merkavah** mysticism]

<Religion, AK>

12. Though compounds with this relationship have similar chemical and physical properties, they rotate plane-polarized light in opposite directions. For 10 points each:

[10] Name this relationship between the two compounds in a racemic mixture in which four different R groups are bound to a chiral center. Compounds with this relationship are mirror images of each other.

ANSWER: **enantiomers** [prompt on isomers]

[10] This method, which is used to isolate a single enantiomer, can be carried out using column chromatography or recrystallization.

ANSWER: chiral **resolution**

[10] Louis Pasteur conducted the first chiral resolution on a racemic mixture of tartaric acid by using this technique, in which an ordered solid precipitates out of solution.

ANSWER: **recrystallization** [or **crystal** growth; prompt on precipitation]

<Chemistry, RRP>

13. This character attempts to bite Robert before being kidnapped and ransomed for 6 guineas. For 10 points each:

[10] Name this real-life cocker spaniel of Elizabeth Barrett Browning, the protagonist of a semi-fictionalized biography.

ANSWER: **Flush**

[10] *Flush* was written by this author, who wrote a novel titled for a gender-shifting character who lives for three hundred years while composing “The Oak Tree” under the guidance of Nicholas Greene.

ANSWER: Virginia **Woolf** (The novel is *Orlando*.)

[10] In another fictional biography, Daphne du Maurier (“MORE-ee-ay”) chronicles the “Infernal World” of an author with this surname. Other authors with this surname wrote *Agnes Grey* and *Jane Eyre*.

ANSWER: **Brontë** [accept Anne **Brontë** or Charlotte **Brontë**]

<Misc. Lit, BB>

14. The *pronaos* that leads to the location of one of these figures was marked with the phrases “Know thyself” and “Nothing in excess” along with a mysterious capital epsilon that was the subject of an essay by Plutarch. For 10 points each:

[10] Name these figures who spoke directly to the Greek gods. One of these figures at Delphi only relayed prophecies from Apollo on the seventh day of each month.

ANSWER: **oracles** [accept **oracle** at Delphi]

[10] The inner chamber, or *adyton*, of the oracle at Delphi contained this sacred stone that represented Rhea's deception of Cronus. Zeus dropped this stone, known as the navel of the earth, at a site where two eagles met.

ANSWER: **omphalos**

[10] During ceremonies, the oracle would sit on one of these objects and hold laurel leaves and a dish with water from the Castalian spring. While trying to atone for murdering Iphitus, Heracles fought Apollo over one of these things.

ANSWER: **tripod** [or a **chair** with **three legs**; accept **stool** or **seat** in place of "chair"]

<Mythology, AK>

15. This technological development, credited to Robert Stein and Aeneas Coffey, enabled mass production of a certain product that was free of esters. For 10 points each:

[10] Identify this technological development sometimes referred to as "patent" or "continuous." It replaced an older "alembic" or "pot" variety preferred by modern-day craft manufacturers.

ANSWER: **columnar** distillation [or **column** still]

[10] The portable nature of pot distillation allowed women to mount stills onto carts and sell this juniper berry spirit during the height of the craze for it in 18th-century London, which William Hogarth criticized in prints titled *Beer Street* and *[this spirit] Lane*.

ANSWER: **gin** [accept **Gin** Craze or **Gin Lane**]

[10] Many manufacturers of the namesake brandies in this region of France are so particular about their craft that, when an old copper pot breaks, they'll still commission a replica complete with all the old dents. The ages of this region's namesake brandies are designated "VS," "VSOP," and "XO."

ANSWER: **Cognac**

<Other/Misc Academic, JC>

16. In his memoir *Reflections of a Russian Statesman*, the gaunt-faced arch-reactionary Konstantin Pobedonostsev ("pub-yeh-dah-NOST-s'yeff") criticized a reform of these institutions that was modelled on examples found in Great Britain. For 10 points each:

[10] Identify these institutions, one of which was created for each *okrug* by an 1864 reform law that also eliminated separate examples of these institutions used by different social classes.

ANSWER: **courts** [prompt on **juries** or **justices** or **judicial** systems]

[10] Those judicial reforms came during the reign of this tsar, whose other social reforms included emancipation of the serfs.

ANSWER: **Alexander II** [prompt on **Alexander**]

[10] Alexander's emancipation reform included restructuring local government into a system of these institutions, which consisted of a representative council and an executive board.

ANSWER: **zemstvo** [or **zemstva**]

<Continental post-600 History, NB>

17. Théophile Gautier's ("tay-oh-FEEL goat-YAY's") article "Shakespeare at the Funambules" revolutionized this character's artistic role by reviewing a made-up pantomime in which he kills a clothes peddler and is in turn killed by the peddler's ghost. For 10 points each:

[10] Identify this naive and tragic character who archetypically loses his lover Columbine.

ANSWER: **Pierrot** ("p'yair-OH")

[10] Pierrot evolved from this European genre of theater that normalized actresses on stage and relied on stock characters wearing masks and archetypal plots with heavy improvisation.

ANSWER: **commedia dell'arte** [or **comedy** of the **profession**; prompt on partial answer]

[10] The tragedy of Pierrot figures into the plot of this author's play *Aria da Capo*. She wrote the poems "Renaissance" and "First Fig," which opens "My candle burns at both ends; / it will not last the night."

ANSWER: Edna St. Vincent **Millay**
<Drama, JC>

18. Long before Maurice Ravel, this composer wrote a short piano piece titled *Boléro* that was much less repetitive. For 10 points each:

[10] Name this Polish-born virtuoso pianist who composed *Fantaisie-Improvisation*.

ANSWER: Frédéric **Chopin** [or Fryderyk Franciszek **Chopin**]

[10] Chopin composed 69 of these folk dances, more than he did for any other genre of piano piece. Chopin's compatriot Maria Szymanowska ("shim-ah-NOFF-skah") wrote 25 of these stylized dances in triple meter.

ANSWER: **mazurkas** [or **mazurek** or **mazurki**]

[10] This composer wrote a monograph titled *F. Chopin* analyzing how Chopin preserved folk idioms in his music. This composer faithfully invoked the *csárdás* ("CHAR-dosh") dance in three of his late piano pieces, two of which are subtitled "macabre" and "obstiné."

ANSWER: Franz **Liszt** [or **Liszt** Ferenc] (Those pieces are *Csárdás macabre* and *Csárdás obstiné*.)

<Classical Music/Opera, WA>

19. The epistemology influenced by this movement includes such concepts as "situated knowledges." For 10 points each:

[10] Name this intellectual movement whose various "waves" of intellectual leaders in the 20th century have included Betty Friedan and Judith Butler.

ANSWER: **feminism** [accept **feminist** epistemology or third-wave **feminism**]

[10] This essay by Martha Nussbaum attacks academics who proffer a feminism which says "that there is little room for large-scale social change," such as Judith Butler, whom it notes won a "Bad Writing Contest" for her prose.

ANSWER: "The **Professor of Parody**"

[10] "The Professor of Parody" notes that a feminist with this surname parodied Butler-like feminists in her novel *Mercy*, and also fought for stricter pornography laws with Catherine MacKinnon. Another thinker with this surname wrote *Taking Rights Seriously*.

ANSWER: **Dworkin** [accept Andrea **Dworkin** or Ronald **Dworkin**]

<Thought, WA>

20. Simón Bolívar had a lot of friends named José. For 10 points each:

[10] Bolívar was very distraught after this revolutionary friend of his was murdered by five assassins in 1830. This victor at the battles of Pichincha and Ayacucho is also the namesake of a capital city.

ANSWER: Antonio José de **Sucre** y Alcalá

[10] Bolívar had strong mutual respect with this "Centaur of the Plains," whose *llaneros* ("yah-NAIR-ohs") cavalry smashed Spanish formations at the Battle of Carabobo. He later became one of Venezuela's leading *caudillos* ("cow-DEE-yohs").

ANSWER: José Antonio **Paéz**

[10] José de San Martín met with Bolívar at the Guayaquil ("gah-yah-KEEL") conference in this country to discuss the future of Peru. The Battle of Pichincha was fought near the city of Quito in this country.

ANSWER: Republic of **Ecuador**

<World History, NB>

