Pre-ICT and Nationals Open/Minnesota Open 2019 (PIANO/MO): "What about bad subject matter? Or a bad title drop, even? That could kill a tournament pretty good."
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Packet 9 Tossups

1. **The parapet of a temple to this deity once housed a relief sculpture in which near-translucent drapery clings to the body of a goddess adjusting her sandal. Unusually, excavations at Piraeus uncovered the Greek bronze model of a Roman marble sculpture of this deity, which is nicknamed "Mattei" and housed in the Louvre. A relief sculpture showing this deity looking downcast and leaning on a spear has been dubbed (*)** "Mourning." A giant bronze statue of this deity was located just behind the Propylaea. An ancient cult statue of this deity was housed behind the "Porch of the Caryatids" in the Erechtheion. Parts of the frieze and pediment of a temple to this goddess were looted by Lord Elgin. For 10 points, name this goddess, a massive chryselephantine sculpture of whom was made by Phidias for the Parthenon.
ANSWER: **Athena** [accept **Minerva**; accept **Athena Nike**; prompt on just **Nike** before "Mattei"] <JR>

2. **The modern form of this language retains its partitive case only for the nouns for "smoke" and "tea," and it preserves the vocative case only in diminutive nicknames. This language's irregular word for the number "forty" probably derives from an archaic term for a bunch of pelts. This language has only one proper past tense and no true future tense, with finer temporal distinctions made by choosing an imperfective or perfective verb. A native speaker of this language coined the term for "paradigmatic" analysis. This language designates (*)** palatalized consonants with a "soft mark." Studies of this language's verb and noun case systems were written by a native speaker who founded the discipline of phonology. This European language has a zero copula, and its nouns do not have articles. Roman Jakobson was a native speaker of—for 10 points—what most widely spoken Slavic language, written in Cyrillic?
ANSWER: **Russian** [or **Russkiy** Yazyk] <JM>

3. **What is now this country saw one of the last incidents of the Qays-Yamān** [KICE yeh-MAN] **feud at the 1711 Battle of ʿAyn Dara. Ṭānyūs Shahīn** [TAWN-yoos shuh-HEEN] **led an anti-feudal uprising in this country during feuds triggered by land disputes in Dayr al-Qamar. Over 80 civilians died in a CIA-backed car bombing in this country that targeted Muḥammad Ḥussein Faḍlallāh** [FOD-luh-law]**. A group in this country fought a "War of Brothers" with another group whose founder disappeared while visiting Qaddāfī, called the (*)** Amal [EH-mull] Movement. The Jumblāṭṭ clan remains influential in a sect in this country. Another sect in this country was represented by the Katāʾeb Party, whose leaders included the Frangīeh and Gemāyel families. The Ṭāʾif Agreement ended a civil war in this country and enforces "mutual coexistence" by requiring it to have a Sunnī prime minister and a Maronite president. For 10 points, name this home country of Hezbollah.
ANSWER: **Lebanon** [or the **Lebanese Republic** or al-Jumhūriyyat al-**Lubnān**iyyah] <JG>

4. **This book claims that, because industrial society applies mass production to the emotions, the act of "true erotic communion" becomes revolutionary. This book analyzes how the phrase "I am your father" is used not to protect but to humiliate. This book accuses European Marxists of ignoring the "blurred and shapeless face" of a group of people who should present a "living human face" to the world instead. This book claims that "death lacks meaning" for those people, whose calendar is crowded with any pretext for a public (*)** gathering. This book, which surveys the work of thinkers like Samuel Ramos and Jorge Costa, claims that its title concept "is the profoundest fact of the human condition" because "Man is the only being who knows he is alone." Sections titled for "The Sons of La Malinche" and "Mexican Masks" appear in—for 10 points—what book by Octavio Paz?
ANSWER: The **Labyrinth of Solitude** [or El **laberinto de la soledad**] <DS>

5. **Dyadic Green's functions are most often used in an expression for this vector quantity. Kelvin's trick for inverting a point in a sphere was first used to compute this quantity around a thin bowl. For a symmetric nth order multipole, this quantity goes as one over r to the n plus two. Solving for this quantity often requires a boundary condition that its tangential component is continuous across an interface. A method of solving for this quantity near a surface simply replaces the surface with equivalent (*)** particles that fix the same boundary conditions. Aside from the method of images, another common method of calculating it creates an imaginary encircling 3D surface and applies the fact that the flux of this quantity is proportional to the total enclosed charge. For 10 points, name this vector which is zero inside a conductor and can be calculated by Gauss' law.
ANSWER: **electric field** [or **E**; do not accept or prompt on "electric displacement field"] <AS>

6. **A "Kantian" interpretation of this philosopher was offered alongside an exploration of his relationships with Ernst Cassirer and Martin Heidegger in Michael Friedman's *A Parting of the Ways*. This philosopher distinguished between "internal" and "external" ontological questions, which was commended as a "pragmatic" willingness to allow the choice of "language forms" as needed for a given hypothesis at the end of a 1951 paper attacking this philosopher's work. This philosopher's revised definition of (*)** analyticity was the main target of W.V.O Quine's "Two Dogmas of Empiricism." In his first major book, this philosopher argued that all true statements about the world can be rewritten in terms of "elementary experiences," allowing for their verification. For 10 points, name this author of 1928's *The Logical Structure of the World*, a leading Logical Empiricist of the Vienna Circle.
ANSWER: Rudolf **Carnap** <JR>

7. **Stephen Greenblatt suggests that this character references Edward Coke's accusations of perjury against Gunpowder Plot accomplice Father Henry Garnet, since this character mentions "an equivocator, that could swear in both the scales against either scale." This character's monologue opens a scene that an essay describes as producing an effect of "peculiar awfulness and a depth of solemnity." That essay opens with the declaration that "From my (*)** boyish days I had always felt a great perplexity on" the scene this character appears in, and is by Thomas de Quincey. This character asserts that "drink, sir, is a great provoker of three things" after letting Lennox and Macduff into Inverness Castle. For 10 points, name this comical character who answers the "knocking at the gate" in Act 2, Scene 3 of *Macbeth*.
ANSWER: The **Porter** <WJ>

8. **This was the original genre of a C-minor piece that includes a Minuet marked "in canone" with a Trio marked "in canone al rovescio." A piece in this genre includes an E-flat-major "Romance" in 3/4 that's interrupted by a C-minor "Allegretto" in 2/4. Mozart's C-minor string quintet is an arrangement of a piece in this genre. A B-flat-major piece in this genre unusually calls for four horns as well as pairs of both clarinets and basset horns. That Mozart piece in this genre includes two (*)** Minuets with two Trios each among its seven movements. They're not symphonies, but Mozart wrote works nicknamed "Haffner" and "Posthorn" in this genre. Mozart's "Gran Partita" is a piece in this genre for thirteen wind instruments. *Eine kleine Nachtmusik* is in—for 10 points—what "light" genre of music similar to a divertimento?
ANSWER: **serenade**s <JR>

9. **A ruler of this name spent most of his short reign repeatedly overthrowing puppets of Crescentius the Younger. A much earlier "War of the Three Henries" was a revolt against a ruler of this name, whose defeat by a Sicilian Emir at the Battle of Stilo gave the Lutici opportunity to launch a "Great Slav Rising" against him. Under a ruler of this name, Gandersheim Abbey was home to one of the earliest known female playwrights, Hrotsvitha. A ruler of this name (*)** married a daughter of John Tzimiskes who is widely credited with introducing cutlery to Western Europe. The second book of Widukind of Corvey's *Deeds of the Saxons* concerns a ruler of this name who names a post-Carolingian cultural renaissance and executed the *horka* Bulcsú after a 955 battle. For 10 points, give this name of the "Great" Holy Roman Emperor who halted the Magyar invasions at Lechfeld.
ANSWER: **Otto** [or **Ottonians**; accept more specific answers like **Otto I**] <JG>

10. **The theta-component of this vector is proportional to a form factor symbolized "J2" which is maximized at one-third. The Somigliana formula approximates the "normal" form of this quantity. The GOCE** ["GO-chay"] **experiment measured variation in it. Assuming terrain is a flat plate, this quantity's magnitude is adjusted from its value at a reference station by 0.4193 times the rock density times the distance. A constant equal to about 1 over 298.26 called the (*)** flattening factor often appears in corrections to this quantity. This quantity, measured in gals, is the gradient of the geoid surface. Poincaré applied the shell theorem to show this quantity increases linearly with radius inside the Earth but decays as one over elevation squared outside it. For 10 points, name this quantity that is approximately 9.8 meters per second-squared at sea level.
ANSWER: Earth's **gravity** [or Earth's **gravitational field** strength; or **acceleration due to gravity**; or **little g**; or **gravitational force**] <AF>

11. **A story in this language describes a *Ulysses-like* novel called "Gigamesh" whose syntactic structure forms a blueprint of Notre Dame cathedral. Michael Kandel is best known for translating books from this language, including a collection of nonexistent book reviews titled *A Perfect Vacuum*. The heroes of a story in this language defeat pirate Pugg by smothering him with printouts of all the information in the universe. A collection in this language is divided into "sallies" like "The Mischief of King Balerion" and (*)** "Trurl's Electronic Bard." The *Tales of Pirx the Pilot* are in this language, which was also used for *The Star Diaries* of Ijon Tichy. Two robotic "constructors" explore the universe in the *Cyberiad*, which was written in this language by an author who also wrote about Kris Kelvin's visit to a planet with a living ocean. For 10 points, name this language used by the author of *Solaris*, Stanisław [sta-NEE-swoff] Lem.
ANSWER: **Polish** [or **polski**] <DS>

12. **Immigrant/native-born divides among Muslims in this country have been studied by scholars like Karen Leonard. A legal digest called the *Bilali Document* is among the earliest evidence of Islam in this country. Some Muslims from this country used a Qur'ān whose cover depicts a red 7 in a blue circle. An imam from this country is known for giving rulings via Snapchat that he calls "Snapwas." Zaytuna College was founded in this country by the liberal theologian (*)** Hamza Yusuf. Ahmadī Muslims in this country founded the magazine *Moslem Sunrise* in 1921. That magazine influenced a movement in this country named for the part of the population that knows the truth and does not suppress it. The Five Percenters and the Moorish Science Temple were from this country, which was home to a Muslim leader who took the name Malik al-Shabazz. For 10 points, name this home of the Nation of Islam.
ANSWER: **United States** of **America** [accept either underlined part; or **U.S.**A.] <JG>

13. **Ions dissolved in this substance are re-oxidized during a potentiometric stripping analysis. A coefficient of negative 0.766 in Washburn's equation is the cosine of the contact angle for this liquid, the most common analyte for porosimetry. This liquid serves as the electrolyte for polarography, and in many voltammetry experiments, it is dripped in at the working electrode from the end of a capillary. The vapor above this liquid is the most common line source of photons in UV (*)** fluorescence lamps. It is oxidized to its chloride at a platinum electrode in a precursor to the standard silver/silver chloride reference, the calomel electrode. It forms a convex meniscus in glass containers and exerts a hydrostatic pressure head equal to one torricelli per millimeter. For 10 points, name this liquid metallic element.
ANSWER: liquid **mercury** [or **Hg**] <AS>

14. **Marvin Harris argued that warfare propagated through band and village societies because it provided an ideological imperative for *this* practice. Joseph Birdsell compiled 194 Aborigine oral genealogies to infer historical rates of this practice. Charles Sumner's *Folkways* described it as an "act of self-defense" that became sacred when "brought into connection with societal welfare," and described Ancient Egypt as a society that "revolted" against it. The only Greek city-state to ban this practice was Thebes. Athens allowed it only before the (*)** *amphidromia* ceremony. Spartans performed this practice at the Apothetae on Mount Taygetus if its subject failed an examination by members of the Gerousia. Pre-Islamic Arabs supposedly gave birth over furrows to facilitate this practice. For 10 points, name this practice whose subjects might be female, disabled, or otherwise burdensome to their parents.
ANSWER: **infanticide** [accept **exposure**; accept more specific answers or descriptive equivalents] <DS>

15. **Michael McKinnell claimed that, if possible, he and Gerhard Kallmann would have used this material to make even the light switches of one building, so that it would have the "all-through-ness" to be the "exemplar of authentic architecture." This material was used for a pair of buildings designed by Bertrand Goldberg and located in Chicago's (*)** Marina City. This material was used in a "ziggurat" form to make the Barbican in London. A cross-shaped opening in this material dominates the Church of the Light by Tadao Ando. Moshe Safdie's Habitat 67 apartments in Montreal, the City Hall in Boston, and Le Corbusier's *Unité d'habitation* are primarily made of this material. For 10 points, name this material whose pre-stressed and reinforced varieties enabled the development of Brutalist architecture.
ANSWER: **concrete** [accept more specific answers like **reinforced concrete**; do not accept or prompt on "cement"] <JM>

16. **A book by Michel de Vroey contrasts *this* title economist's "Walrasian" style to the "Marshallian" style of Keynes. This economist argued that the "operational job" of economists was writing FORTRAN programs that take economic policies as inputs and then output time series. This economist began research on economic development with Paul Romer in the late 1980s, after showing that people would only be willing to give up 0.05 percent of average consumption to (*)** smooth out business cycles completely. In the article "After the Keynesian Revolution," this man and Thomas Sargent called for a return to equilibrium business cycle theory. Earlier, this man attacked Keynesian models that treated as invariant statistical parameters that change with different policies. For 10 points, name this University of Chicago economist with a namesake "critique."
ANSWER: Robert Emerson **Lucas**, Jr. <SB>

17. **The first film to use an awards advertising campaign was based on one of this author's works. A 2018 film whose English title alludes to one of this author's works features an hour-long 3D dream sequence shot in a single take. A 1933 adaptation of one of this author's works starring Paul Robeson is often considered the first movie with an African-American lead. A film based on one of this author's works begins with the line "Gimme a whisky," and was marketed with the tagline "Garbo Talks!" This author's affair with Louise Bryant was portrayed in Warren Beatty's film (*)** *Reds*, where he was played by Jack Nicholson. Rosalind Russell came closest to winning an Oscar as this author's character Lavinia, whose father Ezra is murdered by her mother Christine in his adaptation of the *Oresteia*. For 10 points, name this author of *Mourning Becomes Electra* and *Long Day's Journey Into Night*.
ANSWER: Eugene (Gladstone) **O'Neill** <DS>

18. **Organisms in this genus uniquely decode C·U·G codons as serine, not leucine. It's not *Staphylococcus*, but the *auris* species in this genus is a case study in the emergence of multidrug resistance. Another organism in this genus forms germ tubes when incubated in serum and has a bistable toggle switch between its white and opaque phenotypes. Beta-glucan synthase inhibitors are used against members of this genus. Esophagitis in AIDS patients is caused by infection from a pathogen in this genus that forms (*)** pseudo·hyphae. Flucon·azole is effective against most members of this genus, besides the species *krusei* or *glabrata*. A pathogen in this genus unusually grows as a mold at high temperature and forms white patches in the mouth. For 10 points, name this genus of pathogenic fungi whose major species, *albicans*, causes thrush as well as most vaginal yeast infections.
ANSWER: ***Candida*** [or ***Candida albicans***; or ***Candida auris***; or ***Candida glabrata***; or ***Candida krusei***] <AS>

19. *Description acceptable.***The Jamaican-born Ferdinand Smith co-founded an integrated union for these workers with Joe Curran. At a strike by these workers, police supposedly said, "we'll have none of that Constitution stuff here" while arresting Upton Sinclair for reading the First Amendment on "Liberty Hill." The "Albion Hall Group" was a radical group of these workers that included Harry Bridges, who led a strike by them that peaked during the violence on "Bloody Thursday." One of these workers who founded the union (*)** SIU worked with Bob LaFollette on a 1915 bill that banned corporal punishment for them. These workers spearheaded the 1934 San Francisco General Strike, and unions for these workers, sometimes called "stevedores" [STEE-vuh-dorz], include the ILA and ILWU. For 10 points, name these workers, whose early twentieth-century strike actions included refusing to disembark and unload the *S.S. California*.
ANSWER: **dock**workers [or **longshore**men or **waterfront** workers or **warehouse** workers; accept **sailor**s; accept **stevedor**es until mentioned; accept any answer about **maritime** work, or working on the **sea**, or in **ship**ping] <JG>

20. **This poet described "fire laid upon an emerald as long as the Dark King's massy one" in a poem about an animal "hid by the august foliage and fruit of the grape-vine twine." This author of "To a Chameleon" compared the title concept of another poem to "Gieseking playing Scarlatti" and "the glaze on a katydid-wing." A poem by this author of "The Mind Is an Enchanting Thing" describes a dead "chasm-side" and animals that "wade through black jade," and shares its name with a poem by her mentee (*)** Elizabeth Bishop. The epigraph to her 1967 *Complete Poems* states that "Omissions are not accidents" since it is not, in fact, complete. This author of "The Fish" called for descriptions of "imaginary gardens with real toads in them" in a poem that invokes the scarequoted phrase "literalists of the imagination" and opens "I, too, dislike it." For 10 points, what American modernist wrote the poem "Poetry"?

ANSWER: Marianne **Moore** <WJ>

Packet 9 Bonuses

1. This film, which uses a documentary-style voiceover, is interspersed with "interviews" in which non-professional actors describe their encounters with the protagonist. For 10 points each:
[10] Name this 1985 film that begins and ends with the title woman, played by Sandrine Bonnaire, freezing to death in a ditch.
ANSWER: _**Vagabond**_ [or _**Sans toit ni loi**_]
[10] The director of _Vagabond_, Agnès Varda, was a member of the so-called "Left Bank" of this country's New Wave cinema movement.
ANSWER: **France**
[10] This other Left Bank director collaborated with Marguerite Duras on _Hiroshima, Mon Amour_, and he had Alain Robbe-Grillet [aa-LAA "robe"-gree-YAY] write the screenplay for his film _Last Year at Marienbad_.
ANSWER: Alain **Resnais** [reh-NEH] <JM>

2. This dramatist wrote two farcical plays about a lazy, rich man named Don Cristóbal who marries the beautiful Rosita, who then attracts many lovers. For 10 points each:
[10] Name this Spanish playwright of the Generation of '27 who also depicted the ill-fated marriage between The Bride and The Groom in _Blood Wedding_.
ANSWER: Federico García **Lorca**
[10] Rumor spread that Lorca's assassination during the Spanish Civil War was a reprisal for the death of _this_ dramatist, although this man actually lived for another 40 years. He wrote _La malquerida_ and the commedia dell'arte-inspired _The Bonds of Interest_.
ANSWER: Jacinto **Benavente** y Martínez
[10] Lorca's plays featuring Don Cristóbal are meant to be staged in _this_ fashion. Maurice Maeterlinck's _Interior_ uses this kind of staging, as do a pair of 18th century plays about "love suicides."
ANSWER: using **puppet**s [accept answers involving **marionette**s or **handpuppet**s; accept **ningyo** jōruri; prompt on bunraku or jōruri] (The "love suicide" plays are by Chikamatsu Monzaemon.) <SK>

3. Before her death, this woman wrote a four-line poem whose opening line is "Blessed is the match consumed in kindling flame." For 10 points each:
[10] Name this author of the poem "Eli, Eli" [eh-LEE, eh-LEE], a Jewish paratrooper from the British Mandate of Palestine. She was executed by the Nazis for attempting to rescue Auschwitz-bound Jews from Yugoslavia.
ANSWER: Hannah **Szenes** [or Chanah **Senesh**]
[10] Szenes, like the Jews she tried to rescue, was born in _this_ country. Swedish diplomat Raoul Wallenberg saved thousands of Jews in this country, where regent Miklós Horthy refused to aid the Holocaust until his 1944 ouster.
ANSWER: **Hungary** [or **Magyarország**]
[10] Ferenc Szálasi [feh-rents SAH-lah-shee] led _this_ fascist party, which controlled Hungary for the final months of World War II, after the Nazis installed it in Operation Panzerfaust.
ANSWER: **Arrow Cross** Party [or **Nyilaskeresztes** Párt – Hungarista Mozgalom] <MJ>

4. Name some mechanisms of positive feedback loops in biology, for 10 points each.

[10] CamIIK ["cam two k"] activates long-term potentiation through a simple positive feedback loop in which it catalyzes addition of this ion to itself. Virtually all cellular signalling cascades involve the transfer of this group between kinases.

ANSWER: **phosphate** group

[10] In *this* first phase of an action potential, during which sodium ions enter the cell, a small sodium current opens up many sodium channels, resulting in positive feedback and a rapid increase in the membrane's potential.

ANSWER: **depolarization** [do not accept or prompt on "repolarization" or "hyperpolarization"]

[10] Positive feedback loops in yeast mitosis enable the rapid degradation of *wee1* ["wee-one"] and expression of M·P·F, a complex composed of this cyclin and Cdk1. This cyclin is at high concentrations during mitosis.

ANSWER: cyclin **B** [or cyclin **B1**; or cyclin **B2**] <AS>

5. Pope Paul V, who sent Cardinal Bellarmine to browbeat Galileo in the 1610s, was born a member of this family. For 10 points each:

[10] Name this Italian noble family, whose patriarch Marcantonio relocated it to Rome from Siena. This family, an artistic patron of Caravaggio and Bernini, names a white "Villa" or "Galleria" with extensive gardens on the outskirts of Rome.

ANSWER: **Borghese** family [bohr-GAY-zay]

[10] This Neoclassical Italian sculptor, whose tomb is a white marble pyramid inside Venice's Frari cathedral, depicted Napoleon's sister Paulina Borghese as the reclining goddess Venus Victrix.

ANSWER: Antonio **Canova**

[10] A man calling himself "Prince Scipione Borghese" won *this* early event in automotive history. This *EXXXTREME* challenge in the summer of 1907 was proposed offhand by the French newspaper *Le Matin*.

ANSWER: **Peking**-to-**Paris** automobile race [accept any answer indicating attempts to drive or race a car from **Běijīng**, China to **Paris**, France; prompt on answers like "drive across Eurasia"] <MJ>

6. A culture based around this river was first unearthed at a namesake site whose name means "two-league head." For the stated number of points each:

[10] For 10 points—name this river, where many "animal style" bronzes have been found within the Ordos Loop.

ANSWER: **Yellow** River [or **Húang**hé] (The site is Èrlǐtóu.)

[10] For another 10—name this insect, whose cultivation in the Yellow River valley may have started as early as the Neolithic. These insects feed on mulberry leaves.

ANSWER: **silkworm** [or *Bombyx mori*; accept **silkmoth**]

[5+5] For *5* points each—name the *two* major Neolithic cultures of the Yellow River valley. The earlier one derived from the Péilǐgāng creators of "Jiǎhú symbols," while the later one developed into the Bronze age Èrlǐtóu ["ARE"-lee-toh] culture.

ANSWER: **Yǎngsháo**

Lóngshān <JR>

7. *Description acceptable.* According to some sources, this place's edge was lined with sycamore trees whose bark was made of turquoise. For 10 points each:
[10] Name this mythical location. Another text about it describes a twelve-hour-long journey where each hour brings new sights, such as zigzagging paths in hour 3 and a lake of fire in hour 5.
ANSWER: ancient **Egypt**ian **underworld** [or **Du'at**; or the **Egypt**ian land of the **dead**; or the **Egypt**ian realm of **night**; or the **Egypt**ian **afterlife**; do not accept or prompt on "Aaru" or "Field of Reeds"]
[10] In the twelve-hour journey narrated in the *Am'duat*, this vehicle takes Ra through the underworld. While in this vehicle, Ra slays the serpent Apep in hour 7 each night.
ANSWER: solar **barge** [or solar **boat**; or solar **barque**; prompt on sun]
[10] Hours 4 and 5 of the *Am'duat* cover the realm of this god, the second-most famous falcon-headed god after Horus. This white-clad funerary deity of Memphis was later syncretized with Ptah, or with Ptah and Osiris as Ptah-*this god's name*-Osiris.
ANSWER: **Sokar** [or **Seker**; or **Socharis**; accept Ptah-**Soker**-Osiris or similar] <MJ>

8. In one book, this author described his journey to a monastery in Tibet, during which he and George Schaller looked for the title predator. For 10 points each:
[10] Name this author of *The Snow Leopard* and the massive novel *Shadow Country*. He co-founded the *Paris Review* with Harold Humes and George Plimpton.
ANSWER: Peter **Matthiessen**
[10] Matthiessen later claimed to have used the *Paris Review* as cover while working for *this* U.S. intelligence agency. It funded the literary magazine *Mundo Nuevo* through the "Congress for Cultural Freedom."
ANSWER: **C**entral **I**ntelligence **A**gency
[10] The Congress of Cultural Freedom repeatedly attempted to discredit *this* poet by promoting the career of the centrist poet Julio Barrenechea, and tried to sink his nomination for the Nobel Prize in Literature by publicizing the pro-Stalin sections of his collection *Grapes and the Wind*.
ANSWER: Pablo **Neruda** [or Ricardo (Eliécer Neftalí) **Reyes** (Basoalto)] <DS>

9. The theory of these things was presented with the example of a restaurant by Roger Schank and Robert Abelson, who denoted physical transitions in them as PTRANS and mental transitions as MTRANS, in all caps. For 10 points each:
[10] Name this things first theorized by Silvian Tomkins, which Schank and Abelson grouped with "themes" and "plans." People follow these short formulaic patterns to enact and understand social situations.
ANSWER: **script**s [or social **script**s; accept **script** theory]
[10] In his psychology work, Tomkins also studied *this* concept, which is the manner and extent to which a person expresses emotion. A person who reacts at the slightest touch has a "labile" one of these.
ANSWER: **affect** [accent is on the first syllable]
[10] Flat affect is a diagnostic criterion for this mental condition with a Greek-derived name. The DSM-V ["five"] no longer distinguishes subtypes of it such as "paranoid" and "catatonic."
ANSWER: **schizophrenia** [accept paranoid **schizophrenia** or catatonic **schizophrenia**; prompt on psychosis or psychotic disorder(s)] <MJ>

10. As this quantity increases, a binding isotherm becomes more switch-like, which can then lead to ultrasensitivity. For 10 points each:
[10] Name this quantity symbolized *n*, which is the exponent of the substrate concentration in both numerator and denominator of a modified form of the Michaelis-Menten equation often used to model macromolecular binding.
ANSWER: binding **cooperativity** [or **cooperativeness**; or word forms; or the **Hill coefficient**]
[10] Binding cooperativity helps this effect, which occurs when a polydentate ligand like E·D·T·A occupies more than one site on the central atom of a coordination complex. It can be used to treat heavy metal poisoning.
ANSWER: **chelation** [or word forms]
[10] In heterogeneous catalysis, the Toth equation assumes that this dimensionless quantity depends cooperatively on the partial pressure. Another model sets this quantity, often symbolized theta, equal to "KP over one plus KP", if temperature is constant. A description is fine.
ANSWER: fractional **occupancy** [or fractional site **coverage**; or the fraction of **occupied sites**; or the fraction of **binding site**s that have a gas molecule **bound**; or the fraction of **sites** on a heterogenous catalyst with **adsorbed** gas; or any other equivalents] <AS>

11. Ādi Shaṅkara was the leading exponent of the monistic Advaita position within this school. For 10 points each:
[10] Name this orthodox school of Hindu philosophy whose members debated about the relationship between the observable world, the self, and ultimate reality, or *prakriti*, *ātman*, and *brahman*, respectively.
ANSWER: **Vedānta** [or **Uttara-Mīmāṃsā**; do not accept just "Mīmāṃsā" or "Pūrva-Mīmāṃsā"]
[10] The "three sources" of Vedānta, or *Prasthānatrayī*, includes *this* set of over 200 philosophical texts that comprise part of the Vedas. One of them, called Chāndogya, compares life to a soma-festival and ethical conduct to offerings made at that festival.
ANSWER: **Upanishad**s
[10] Ādi Shankara wrote the first *bhāshya*, or commentary, on *this* text attributed to Bādarāyaṇa, which codified the teachings of the Upanishads. It refutes the distinction between *purusha* and *prakriti*, or mind and matter, held by the Sāṃkhya and Yoga schools.
ANSWER: **Brahma-sūtra**s [or **Shārīraka-sūtra**; or **Bhikshu-sūtra**; prompt on Vedānta-sutra] <SK>

12. Mal Waldron opened a "C#" ["C sharp"] version of this standard by quoting a Rachmaninoff prelude. For 10 points each:
[10] Name this Jerome Kern song whose chords are based on a series of trips around the circle of fifths. Charlie Parker wrote a common introductory line for this song, whose lyrics proclaim "I'll know that moment divine" when the title objects "are mine."
ANSWER: "**All the Things You Are**"
[10] The aforementioned "All the Things You Are C#" appears on a live album by *this* jazz bassist and composer *At the Bohemia.* He's better-known for albums like *The Black Saint and the Sinner Lady* and for a comprehensive guide for toilet training your cat.
ANSWER: Charles **Mingus**, (Jr.)
[10] This contemporary jazz pianist plays a crazy fugue-like intro in his 7/4 version of "All the Things You Are"; that recording appears alongside many Radiohead covers on his album series *Art of the Trio*.
ANSWER: Brad **Mehldau** [accept **Brad Mehldau** Trio] <JM>

13. This period began with a declaration of independence following the smashing of José González Llorente's flower vase, and also involved a royalist *pardo* uprising led by José Tomás Boves. For 10 points each:
[10] Name this period concurrent with the first two Venezuelan Republics, which came after an 1810 declaration of independence and ended with Pablo Morillo's 1816 royalist reconquest. Its popular name refers to the chaos of disputes between "federalists" and "centralists," like the de facto secession of Cundinamarca.
ANSWER: **Patria Boba** period [accept **United Provinces of New Granada** but do not accept or prompt on "Republic of New Granada" or just "New Grenada"; prompt on Colombian independence]
[10] The failures of the Patria Boba period influenced this man's shift to conservatism in the "Jamaica Letter." This liberator issued his "Decree of War to the Death" during his "Admirable Campaign" in Venezuela.
ANSWER: Simón **Bolívar** [or, ugh, José Antonio de la Santísima Trinidad **Bolívar** Palacios Ponte y Blanco]
[10] Bolívar and Francisco de Santander secured New Granada's independence by winning *this* 1819 battle after a daring Andes crossing. This victory paved the way for the 1821 victory at Carabobo.
ANSWER: Battle of **Boyacá** <JG>

14. The optimal total number of these things can be calculated by attempting to minimize the out-of-bag error calculated through bootstrap aggregation. For 10 points each:
[10] Name these constructs that hierarchically and discretely classify variables according to particular features. Random collections of them are generated, and then the resulting mode of them is output, in a machine learning algorithm developed by Tin Kam Ho.
ANSWER: decision **tree**s [prompt on random forests by asking "Random forests are collections of what objects?"]
[10] The optimal number of decision trees should be limited to avoid this phenomenon, in which too many parameters are used to justify too little data in the training set, so the model lacks predictive power.
ANSWER: **overfitting** [or **overtraining**]
[10] Weak learned decision trees are aggregated together and weighted by their predictive capacity to form a net strong classifier in the "adaptive" form of this process in machine learning.
ANSWER: **boost**ing [or **AdaBoost**] <AS>

15. This writer described "teeth of flowers" and "hairnet of dew" in her poem "I Am Going to Sleep," which titles the last collection she published before drowning herself. For 10 points each:
[10] Name this Argentine poet who described how "No pure ray of moon would shine its light on me" in her poem "You Want Me White."
ANSWER: Alfonsina **Storni**
[10] A critical study of Storni was written by *this* other poet. The 1909 suicide of Romelio Ureta inspired a collection of sonnets by this author of *Ternura*.
ANSWER: Gabriela **Mistral** [or Lucila Godoy y **Alcayaga**] (That collection is *Sonnets of Death*.)
[10] Although she wasn't one of them, Mistral's poetry often features *these* people, such as in a poem about a "Sad" one that repeats, "Sleep, sleep, my beloved." Allen Ginsberg's poem "Kaddish" mourns the death of one of these relatives.
ANSWER: **mother**s [accept obvious equivalents] <WJ>

16. This chief justice incorporated the "discovery doctrine" into American law to rule that all sales of Native American land must go through the federal government in the oft-reviled *Johnson v. M'Intosh* decision. For 10 points each:

[10] Name this Chief Justice who also presided over the formalization of the relationship between the federal and state governments and Native American nations in *Cherokee Nation v. Georgia* and *Worcester v. Georgia*.

ANSWER: John (James) **Marshall**

[10] Much later, the Rehnquist Court ruled that, despite Free Exercise, the use of sacramental peyote by Alfred Leo Smith was grounds for Oregon to deny him *this* form of assistance. *Sherbert v. Verner* arose from claims about this kind of government assistance.

ANSWER: **unemployment** benefits [accept any answer that describes state **aid for the jobless**]

[10] *This* landmark 1968 case ruled that the namesake Wisconsin tribe kept treaty-guaranteed fishing and hunting rights even if their tribal status was "terminated," so long as the termination did not specify the loss of said rights.

ANSWER: ***Menominee** Tribe v. United States* <JG>

17. Loschmidt's paradox is resolved by assuming that a system with this property is actually surrounded by a thermal reservoir. For 10 points each:

[10] Name these systems that cannot exchange either mass or energy with the surroundings, unlike in a closed system. The precise formulation of the Second Law prohibits entropy from decreasing in this type of system.

ANSWER: **isolated** systems [do not accept or prompt on synonymous answers]

[10] A common case of the Second Law is that the entropy of this specific isolated system must increase. This thing is the union of *any* system and its surroundings, and its "heat death" is a consequence of the Second Law.

ANSWER: the **universe** [do not accept or prompt on synonymous answers]

[10] This other quantity, which has a negative linear relationship with entropy, decreases in all irreversible processes, assuming molecular chaos. It is defined by a distribution function over all particles that is minimized when the energies obey a Maxwell–Boltzmann distribution.

ANSWER: Boltzmann's H [from the H-theorem; do not accept or prompt on "enthalpy"] <AS>

18. This man's grandson was known for painting Napoleonic battles and Orientalist subjects. For 10 points each:

[10] Name this 18th-century French landscape painter, best-known for seascapes like *The Port of Rochefort* and many paintings of ships in stormy weather.

ANSWER: Claude Joseph **Vernet**

[10] Along with Greuze and Chardin, Vernet was one of the few contemporary painters praised by *this* French thinker, who wrote many accounts of Salons in the 1760s. Michael Fried's *Absorption and Theatricality* take this man's writings as its starting point.

ANSWER: Denis **Diderot**

[10] Diderot was especially critical of *this* "frivolous" style of Late Baroque art, characterized by pastel colors and highly curved ornaments. It was exemplified by the paintings of Fragonard and Boucher.

ANSWER: **Rococo** <JR>

19. The speaker of the poem "Heaven" asks "who will show me those delights on high?" and one of these figures responds: "I." For 10 points each:
[10] Identify these figures who appeared in many pastoral poems of the 16th and 17th centuries. In a Jonathan Swift poem titled after one of them, a shepherd asks, "what can keep her chaste whom I adore?" and is told: "A door."
ANSWER: **echo**es [accept "A Gentle **Echo** on Woman"]
[10] "Heaven" was written by *this* Metaphysical poet, who rhymed successively shorter words in "Paradise" and let the reader pick between rhymes like "life" and "strife" in "The Water-course." He also wrote "The Collar."
ANSWER: George **Herbert**
[10] Herbert also wrote *this* poem, which lacks rhymes at the end of each stanza until the speaker asks God to let his mind "chime" again. It shares its name with a poem that was chanted at Giorgos Seferis's funeral as a sign of resistance against the Greek military junta.
ANSWER: "**Denial**" <DS>

20. This space is typically surrounded by a temple's portico. For 10 points each:
[10] Name this inner sanctum of a Classical Greco-Roman temple, which typically housed sacred objects like votive statues.
ANSWER: **cella** [or **naos**]
[10] Unusually, the Roman temple to *this* goddess had a sacred flame in its cella, not a statue. The temple to this goddess was maintained by a college of namesake "Virgins."
ANSWER: **Vesta** [accept **Vestal** Virgins]
[10] The Temple of Vesta also housed *this* wooden statue that Aeneas supposedly stole from Troy.
ANSWER: **Palladium** <JR>