

ACF Regionals 2020

Packet D by Maryland A, McMaster A, Michigan A, and NC State A

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Tossups

1. An artist from this city urinated into a friend's mouth for his artwork *Piss Action*. The work of Valie Export and the bloody Orgien ("OR-ghee-in") Mysterien Theater pieces exemplify a movement of "Actionism" from this city. Artists from this city used the symbol of a shattered pot holding a tree sprouting three shields. An artist painted a woman baring her bottom in *Goldfish (To My Critics)* as a response to a university in this city rejecting his paintings *Philosophy*, *Medicine*, and *Jurisprudence*. A movement from this city published *Ver Sacrum*, a magazine designed by Koloman Moser. An artist from this city produced a painting of a curled-up, red-haired Danaë and used gold leaf in his portraits of Adele Bloch-Bauer. For 10 points, name this city home to a "Secession" movement led by Gustav Klimt.

ANSWER: **Vienna** [or **Wien**; accept the **Viennese** Actionists or the **Vienna** Secession movement]
<Painting/Sculpture>

2. This figure rhetorically asks, "Who ever saw a temple to [him]?" in a dialogue with Hermes written by Lucian. A fragmentary text titled for this figure inspired the Carians to wear garlands as symbols of atonement; that text also inspired a verse drama in which this figure confronts the "tremendous image" of a "frail and empty" Phantasm. While riding a winged steed, Oceanus tells this figure to hold his tongue in a play that opens with Kratos and Bia, the avatars of Power and Force, bringing him to Scythia with Hephaestus. This figure tells Io to travel to Canopus based on an oracle from his mother Themis in a trilogy by Aeschylus ("ESS-kuh-luss"). This Titan wraps bones in fat to trick Zeus out of meat. For 10 points, name this Titan bound and beset by a liver-eating eagle after he steals Olympus's fire.

ANSWER: **Prometheus** [accept **Prometheus Bound** or **Prometheus Unbound** or **Prometheia** or **Promētheús Desmótēs** or **Promētheús Lyomenos**]
<Mythology>

3. A paper by Valerie Ramey subtitled "It's all in the Timing" compares VAR and narrative methods of measuring shocks to this quantity. The relationship between this quantity and growth is plotted on the Rahn curve. It's not a rate, but according to a theorem formalized by Robert Barro, changes in this [emphasize] *quantity* don't affect aggregate demand. This non-revenue-generating [emphasize] *quantity* is held to balance out over time in Ricardian equivalence. Classical economics argues that this variable depresses consumption via the crowding-out effect, and it increases in expansionary fiscal policy. According to Keynesians ("CANE-zee-ins"), increases in this variable boost consumer demand during recessions. For 10 points, name this component of GDP along with consumption, investment, and net exports, often symbolized G.

ANSWER: **government spending** [or **government expenditures** or **government consumption** or **government investment**; accept **G** until it is read; prompt on **spending** or **expenditure**; prompt on the **debt** or the **deficit** or the **budget**; prompt on **taxes** or **taxation** with "what do taxes finance?"; do not accept or prompt on "consumption" or "investment"]

<Social Science (Economics)>

4. Fritz Horn's deficiency zero theorem applies to mass action systems that have both a weak form of this property and a deficiency of zero. Reactions in dynamic combinatorial chemistry by definition have this property. The process of suicide inhibition has the [emphasize] *opposite* of this property, which typically occurs when a ligand

("LIG-und") covalently bonds with its receptor. Chemical systems have this property microscopically as a consequence of detailed balance. Since reactions under thermodynamic control have this property, they generate the more stable product. Over a long period of time, a reaction with this property will reach a state of dynamic equilibrium. A pair of arrows pointing in opposite directions indicates, for 10 points, what property of reactions that can run both backwards and forwards?

ANSWER: **reversibility** [or word forms like **reversible**; accept forms of **reversibility** like microscopic **reversibility** or weak **reversibility**; accept time-**reversible** or time-**symmetric** or time reversal **symmetry**; prompt on at **equilibrium** by asking "what property must a reaction have for it to be able to reach equilibrium?"]
<Chemistry>

5. The deep ecologist Joanna Macy popularized a poem from a book titled for this person that tells the addressee to "Let this darkness be a bell tower / and you the bell." A collection titled for this person advises: "when the earthly realm has forgotten you, / to the quiet earth say: I flow / to the turbulent waters say: I am." This figure fashions a "temple deep inside their hearing" for a throng of forest animals in a poem that opens "A tree ascended there. O pure transcendence!" A collection titled for this person advises "Erect no gravestone" in its fifth poem; that cycle was written in the same "creative storm" after the death of Vera Knoop that produced its author's *Duino Elegies*. For 10 points, Rainer Maria Rilke ("RYE-ner muh-REE-uh RIL-kuh") wrote "sonnets" to what singer whose love of Eurydice was depicted by Ovid?

ANSWER: **Orpheus** [or *Sonnets to Orpheus*; or *Orphic Songs*]
<European Literature>

6. This novel describes the smell of the world's "ways of breaking men" as "Sicksweet. Like old roses on a breeze." A character in this novel forcibly bathed a peasant child in a public well every Thursday to attract the attention of an Irish-Catholic priest. In this novel, a new species of moth is discovered by Pappachi. "Anything can happen to anyone" and "It's best to be prepared" are the "Two Thoughts" of a boy in this novel who is molested during a performance of *The Sound of Music* by the Orangedrink Lemondrink Man. In this novel, Baby Kochamma claims that Sophie Mol's drowning was caused by Ammu's lover, the "untouchable" Velutha ("VEL-oo-tuh"), who befriends Ammu's twin children. The siblings Estha and Rahel commit incest at the end of, for 10 points, what novel by Arundhati ("uh-ROON-duh-tee") Roy?

ANSWER: *The **God of Small Things***
<World/Other Literature>

7. William Beresford became commander-in-chief of this country's military after its occupation by Jean-Andoche Junot ("zhoo-NO"). A princess of this country popularized tea-drinking in English society. This nation's republican national anthem was composed after its government acquiesced to an 1890 British ultimatum to withdraw from a land corridor in the "Pink Map." This country's queen Phillipa of Lancaster raised its "Illustrious Generation," and her marriage sealed an extant alliance with the Treaty of Windsor. The Treaty of Methuen established terms of trade between Britain and this country that David Ricardo used to illustrate comparative advantage for wine and cloth. For 10 points, name this nation defended by the British while Napoleon occupied Lisbon.

ANSWER: **Portugal** (Catherine of Braganza popularized tea in England after marrying Charles II.)
<European History>

8. A 2000 book by Susan Buck-Morss claims that the failed central goal of the 20th century was the construction of "mass" examples of these things. A 1929 book asserts mindsets described by this word are "incongruous with the immediate situation" and "tend to shatter the order of things." Quentin Skinner interpreted a book with this title as a Renaissance humanist takedown of the concept of private property. A book by Karl Mannheim that presents a sociology of knowledge pairs this concept with ideology. Peter Giles and the traveler Raphael Hythlodæus appear in

the book whose title coined this term, which describes an island with a kind of welfare state where different religions are tolerated. For 10 points, name this kind of ideal society imagined in a book by Thomas More.

ANSWER: **utopia** [accept **utopian** mindset; accept **dreamworld**; accept *Ideology and Utopia*]

<Philosophy>

9. Activation of a protein complex named for this process causes cleavage of Gasdermin D. This process characterizes a form of programmed cell death triggered by caspase-1 activation. A protein that acts as an opsonin by binding to phosphorylcholine is released from the liver in response to this process; that protein is C-reactive protein and is an example of an acute phase protein. This process is promoted by leukotrienes and their precursor, arachidonic acid. It's not platelet aggregation, but by forming a complex with cyclooxygenase-1, acetylsalicylic acid prevents this process by preventing prostaglandin synthesis. This process is promoted through mast cell degranulation, during which histamine is released. For 10 points, name this immune response characterized by heat and swelling.

ANSWER: **inflammation** [or the **inflammasome**]

<Biology>

10. A psalter named for this city contained the first version of "The Old 100th" composed by Loys Bourgeois ("lwee boor-JWAH"). Ami Perrin led Libertines in launching a coup against this city's government and urged the massacre of its French refugees. Every year, this city celebrates the defeat of Duke Charles Emmanuel I's attempts to have his army scale its walls on L'Escalade. For preaching Sabellianism and anti-infant baptism, Michael Servetus was burned at the stake on the orders of this Protestant city's council. After witnessing the Battle of Solferino, Henri Dunant ("on-REE due-NAWN") convened humanitarians in this city to found the International Committee of the Red Cross. For 10 points, name this Swiss city that names a series of conventions on human rights in warfare?

ANSWER: **Geneva** [or **Genève**]

<European History>

11. In a play by this author, a woman claims that having never seen the "wonder" of a woman's breasts is like never having seen the sky as she bares her chest to two other characters. A man explains what a "brute beast" is while describing evolution near the end of a play by this author that is punctuated by the sound of jet planes. A woman quotes Bette ("Betty") Davis's line "what a dump!" in a play by this author that includes the story of a boy shooting his mother then ordering a "bergin ("BERG-in") and water." In a play by this author, Nancy and Charlie meet the lizard couple Sarah and Leslie on the beach. In one of his plays, games like "Hump the Host" and "Get the Guests" are played by Nick, Honey, George, and Martha. For 10 points, name this playwright of *Seascape* and *Who's Afraid of Virginia Woolf*?

ANSWER: Edward **Albee** [or Edward **Albee** III]

<American Literature>

12. The tilt form of this phenomenon can be described mathematically by a namesake term [read slowly] "two rho cosine theta times Z-sub-one-one" that is part of a set of orthonormal polynomials. If all other forms of this phenomenon are absent, then lowering the Petzval sum will minimize the system's thickness variation and reduce the field curvature variety of this phenomenon. Seidel's ("ZY-del's") method can be used in rotationally symmetric systems to calculate this phenomenon's five primary monochromatic types. When Seidel's method fails, Zernike ("ZAIR-nee-kuh") polynomials can model third-order types of this phenomenon, such as coma resulting from variation in refractive indices and magnification. For 10 points, name this property whose forms include astigmatism and spherical, in which the image formed by an optical system exhibits distortion or blurring.

ANSWER: optical **aberration** [accept specific types of **aberration**, such as spherical **aberration**, chromatic **aberration**, or field curvature **aberration**; prompt on **distortion** until read; anti-prompt on **astigmatism** by asking “what is the general name for errors like astigmatism?”]

<Physics>

13. The narrator contrasts his own “vision of grayness” with this phrase, which has “conviction” and “a vibrating note of revolt.” As he goes to deliver a packet of letters and a portrait, the protagonist imagines a man staring at him from the glass panel of a mahogany door and saying this phrase. The narrator almost asks a woman, “Don’t you hear them?” as “the dusk” seems to repeat these words around them like the “first whisper of a rising wind,” but decides to tell her that a man said her name instead of these words. After this phrase is spoken, a “manager’s boy” puts his head into the mess-room to announce “he dead.” The narrator lies to The Intended to conceal that her fiancé said these words before dying on a riverboat. For 10 points, name these last words of Kurtz in Joseph Conrad’s *Heart of Darkness*.

ANSWER: “The **horror!** The horror!”

<British Literature>

14. Jasper Danckaerts, a nature writer in this colony who recorded the myth of the “World Turtle,” founded a community for the Dutch Labadist sect at Bohemia Manor. The pirate Richard Ingle repeatedly raided this colony in an attempt to seize fur trading posts off its coast, but was thwarted by mercenaries whom Margaret Brent then had to pay off with its late governor’s estate. The so-called “last battle of the English Civil War” was fought at the Severn River in this colony, where tensions from the war resulted in the “Plundering Time.” In this state, freedom of worship was extended to all Trinitarian Christians via a 1649 Toleration Act. Founded by the Calvert family as a refuge for Catholics, for 10 points, name this colony whose original capital of St. Mary’s City lies on the Chesapeake Bay.

ANSWER: **Maryland**

<American History>

15. A piece by a composer from this country begins with a solo clarinet playing the following syncopated melody: long E, [pause] E, D, D F, E, D C. The *Antigone Symphony* was the first symphony by another composer from this country, who founded its national symphony orchestra in 1928. The eclectic percussion section of a Second Symphony from this country features a string of deer hooves known as the *grijutian* and a string of cocoons known as the *tenabari*. Pieces from this non-Cuban country include *Danzón No. 2* and *Sinfonía india*, which was written by a composer who conducted the premiere of Aaron Copland’s tone poem about one of its “salons.” For 10 points, Arturo Márquez and Carlos Chávez are composers from what home country of mariachi music?

ANSWER: **Mexico** [or United **Mexican States** or **Estados** Unidos **Mexicanos**; accept *El Salón México*]

<Classical Music>

16. Design templates for these objects are described by 2D Gerber files and can be manipulated using software like Altium Designer and KiCAD. A common industrial technique involves fitting these objects with surface-mount devices and then heating them in a reflow oven. These objects are usually manufactured by laminating an FR4 glass epoxy substrate with thin layers of copper foil. A white silkscreen layer is used to label different test points on these objects, which are coated with a green “mask” to prevent accidental oxidation. The top side of these objects features “conductive traces” that show you which circular holes are wired together. For 10 points, components are soldered (“SODD-erd”) onto what flat, rectangular objects that are found in nearly all electronic devices?

ANSWER: printed **circuit boards** [or **PCBs**; or printed **wiring boards**; or **PWBs**; or **motherboards**; prompt on **circuits** or **boards**; do not accept or prompt on “breadboards”]

<Other Science (Engineering)>

17. A “Series F” of solo improvisations for this instrument make up an avant-garde 1972 album that follows up on a 1970 album whose title is “For [*this instrument*].” The albums *Nipples* and *Machine Gun* were recorded by a German player of this instrument, Peter Brötzmann. A player of this instrument included “Our Prayer” and two versions of his standard “Ghosts” on his album *Spiritual Unity*. Anthony Braxton and Albert Ayler played this instrument, as did a bandleader who recorded the late-career free jazz albums *Meditations* and *Ascension*. A musician who played this instrument formed a “double quartet” that included cornettist Don Cherry, and composed the standard “Lonely Woman,” which appears on *The Shape of Jazz To Come*. For 10 points, name this instrument played by Ornette Coleman and John Coltrane.

ANSWER: alto **saxophone** [accept tenor **saxophone**; accept soprano **saxophone**; prompt on **alto**]

<Other Arts (Jazz)>

18. In 2002, archaeologists discovered extensive rock art of cattle and herders in this country’s Laas Geel (“loss gail”) cave complex. Traders in this modern-day country carried cinnamon and other spices on *beden* (“BED-en”) ships from the Adal Sultanate’s ports of Zeila and Berbera. The British colonial administration in this modern-day country fought Mohammad Abdullah Hassan, who led the Dervish movement and was nicknamed the “Mad Mullah.” A breakaway region of this country takes its name from the location of an ancient Egyptian expedition, the Land of Punt. George H. W. Bush ordered U.S. troops to this country after the overthrow of Siad Barre’s (“see-AWD ba-RAY’s”) military junta. For 10 points, name this Red Sea country where local militias downed a U.S. Black Hawk helicopter in Mogadishu.

ANSWER: **Somalia**

<World History>

19. According to Jonathan ben Joseph, these people are frightened by eclipses. Rabbi Meir (“meh-EER”) claimed that these people could become equal to Aaronic (“air-ON-ic”) priests by studying the Talmud. The duty to honor one’s parents is often illustrated by the story of the red heifer (“HEFF-er”) that blessed one of these people in Ashkelon named Dama Ben Nisina. A devout Hellenistic class of these people were called “God-fearers.” The Amoraic (“am-oh-RAY-ic”) sage Ravina dissented from the view that these people can become righteous *gerim toshvim* (“gair-EEM toshh-VEEM”) by following the Noahide laws. The “shabbos” (“SHA-biss”) example of these people performs prohibited melakha work on the Sabbath. These people include the “Righteous Among the Nations” who saved lives during the Holocaust. For 10 points, name these people who do not celebrate Rosh Hashanah.

ANSWER: **gentiles** [or **goyim**; or **nokhri**; or **non-Jews**; or people who **aren’t Jewish**; accept **ethnos** or **étnē**; anti-prompt on specific gentile groups like **Samaritans** or **Arabs** or **Christians** or **Judaizers** by asking “what is their more general religious relationship to the people in the question?”; do not accept or prompt on “converts to Judaism” or “giyur”]

<Religion>

20. Ödön Lechner designed this modern-day country’s Art Nouveau “Little Blue Church” of St. Elizabeth. Jakob (“yah-kawb”) Bogdani painted exotic birds in this country, where Master Paul of Levoča (“leh-vo-cha”) created an altar for Spiš (“spish”) Castle. Thomas Bell’s novel *Out of This Furnace* chronicles mining in Pennsylvania by the Rusyn diaspora from this country’s Prešov region. Vlkolínec (“vull-ko-LEE-nets”) and Čičmany (“cheech-mah-nih”) are open-air folk museums in this home country of the Robin Hood figure Juraj Jánošík (“YOO-rye YAH-no-sheek”). Many Hungarian rulers were crowned in Saint Martin’s Cathedral in this country’s capital, where a treaty in the Primate’s Palace ended the War of the Third Coalition. In German, Pressburg is the capital of this country, which was the alphabetically-second created by the “Velvet Divorce.” For 10 points, what country’s capital is Bratislava?

ANSWER: **Slovakia** [or **Slovak** Republic; or **Slovenská** republika; accept **Slovak**-Americans]

<Geography>

21. This property was initially termed “eta charge” and is the fourth component alongside electric charge, isospin, and baryon number in a formula initially proposed by Tadao Nakano and Kazuhiko Nishijima. Hadrons with this property are subject to decay a few centimeters away from the point of production, making it a good signifier of QGP. The unexpectedly long decay time of kaons and hyperons led Abraham Pais and a Caltech physicist to propose this property, introducing a new quantum number. In octet and decuplet Eightfold Way diagrams, mesons and baryons are arranged in rows based on this property, which is not conserved in weak interactions but is conserved in strong and electromagnetic interactions. For 10 points, name this property that lent its name to a light, second-generation, non-charm quark sometimes referred to as the “sideways” quark.

ANSWER: **strangeness**

<Physics>

Bonuses

1. This king equipped the Winged Hussars with lances for the first time and transformed them from light cavalry to an elite shock force. For 10 points each:

[10] Name this Polish king who reigned with his wife, Anna Jagiellon (“yag-YELL-on”). This monarch concluded the Peace of Jam Zapolski with Ivan the Terrible after besieging Pskov (“pss-KOFF”) during the Livonian War.

ANSWER: Stephen **Báthory** (“BAH-tor-ee”) [or **Báthory** István]

[10] The golden age of the winged hussars began with the Battle of Lubieszów (“loob-YESH-oof”) during this city’s rebellion against Stephen Báthory. This city’s namesake “corridor” provided access to the sea for interwar Poland.

ANSWER: **Danzig** [or **Gdańsk**]

[10] Stephen Báthory was the first of the Báthory princes of this region formerly ruled by a Voivode. This region, whose name means “beyond the forest,” forms Romania with Wallachia and Moldavia.

ANSWER: **Transylvania**

<European History>

2. Answer the following about algorithms named for Berkeley computer scientist Richard Karp, for 10 points each.

[10] The Edmonds–Karp algorithm implements the Ford–Fulkerson method to find the maximum weighted path through networks named for these things. Finding the “max” example of these things is an equivalent problem to finding the “min cut.”

ANSWER: **flows** [or network **flow**; accept **flow** networks or max **flow**]

[10] The Karp–Hopcroft algorithm produces a maximum-cardinality matching on these graphs. If you can assign a color to an arbitrary initial node in each component, and then find a 2-coloring on the graph, then the graph has this property.

ANSWER: **bipartite** graph [or **bigraph**; accept graphs with **no odd cycles**, but do not accept or prompt on “graphs having no cycles”]

[10] The Rabin–Karp algorithm uses a rolling hash to perform searches on this data type. This data type is represented as an array of character types in many languages.

ANSWER: **strings** [or **str**]

<Other Science (Computer Science)>

3. Richard Jeffrey developed a namesake generalization of this principle, which provides a solution to the problem of uncertain evidence. For 10 points each:

[10] Name this principle in Bayesian (“BAY-zee-in”) epistemology, which states that your posterior credence in a hypothesis H, upon learning new evidence E, should equal your prior credence in E and H divided by your prior credence in E.

ANSWER: **conditionalization** [accept making **conditional**]

[10] Carl Hempel discovered this paradox in which conditionalizing on a piece of evidence – like a shoe being white – raises your posterior credence in the unrelated hypothesis that this paradox’s namesake creatures are all black.

ANSWER: paradox of the **ravens** [accept any answer mentioning **ravens**]

[10] Bayesians often model this type of reasoning using conditionalization. In this type of reasoning, the premises only provide evidential support for the conclusion, in contrast to deductive reasoning.

ANSWER: **inductive** [or word forms, such as **induction**]

<Philosophy>

4. In a novel by this author, the protagonist ruminates on a sketch of two people flying kites in the “Principal Record of the Twelve Girls of Chin Ling.” For 10 points each:

[10] Name this author who made namesake kites and wrote a guidebook on the manufacture of kites. A novel by this author begins with the couplet “Truth becomes fiction when the fiction’s true; Real becomes not-real where the unreal’s real.”

ANSWER: **Cáo** Xuěqín (“tsao shway-cheen”) [or **Cáo** Zhān; accept **Mèngruǎn**; accept **Cáo** kites] (The novel is *The Dream of the Red Chamber*.)

[10] Sam and Willie are told that “you can’t fly kites on rainy days” by this title character of a 1982 play. After he is told to imagine a “world without collisions,” this character remarks that the United Nations is “a dancing school for politicians.”

ANSWER: Master **Harold** [or **Hally**; accept “*Master Harold*” ...and the Boys] (by Athol Fugard)

[10] Hassan replies, “For you, a thousand times over” after Amir asks him to run a kite in Khaled Hosseini’s *The Kite Runner*, which is set in this Asian country.

ANSWER: **Afghanistan**

<World/Other Literature>

5. This character says of her son, Avery: “He’s a baby, not a political statement.” For 10 points each:

[10] Name this Candice Bergen-played reporter, whose defense of her choice to raise her son is presented in “You Say Potato, I say Potato.” She returns from retirement to cover Donald Trump’s election as president.

ANSWER: **Murphy Brown** [accept either name]

[10] The episode “You Say Potato, I Say Potato” lampoons this politician. This vice president under George H. W. Bush criticized Murphy becoming a single mother, claiming that it “[mocked] the importance of fathers.”

ANSWER: Dan **Quayle**

[10] *Murphy Brown* satirized this event in the episode “Send in the Clowns.” A 2016 HBO film depicting this event was directed by Rick Famuyiwa, earned Kerry Washington a Primetime Emmy nomination, and also starred Wendell Pierce and Greg Kinnear.

ANSWER: Clarence **Thomas**’s **confirmation hearings** [accept answers like “the **Anita Hill** hearings” or “**Anita Hill** testifying before the **Senate**”]

<Pop Culture>

6. The many mosaic works at this location include the orange and blue salamander “El Drac” and the decorated ceiling of the Hypostyle Room. For 10 points each:

[10] Name this public space in Barcelona featuring distinctive serpentine benches designed by Josep Maria Jujol (“zhoo-ZEP Maria zhoo-ZHOLE”). The two gatehouses at this space’s entrance are often compared to gingerbread houses.

ANSWER: **Parc Güell** (“gwail”) [or **Park Güell**]

[10] This Catalan architect of the *modernisme* (“mood-er-NEEZ-muh”) movement designed Park Güell. This man also developed the initial plans for the still-unfinished Basilica de la Sagrada Família.

ANSWER: Antoni **Gaudí** (“gow-DEE”) [or Antoni **Gaudí** i Cornet]

[10] “El Drac” and many other sculptures in Park Güell are decorated with this style of Catalan mosaic that uses broken china. This style often incorporates found objects like buttons and shells into the mosaic pattern.

ANSWER: **trencadís** (“trun-ka-THESE”) [accept **pique assiette**, **broken tile** mosaics, **bits and pieces** mosaic, **memoryware**, or **shardware**; accept **chopped** mosaic]

<Other Arts (Architecture)>

7. This particle has a predicted lifetime of about 5 times 10-to-the-negative-25 seconds. For 10 points each:

[10] Name this most massive quark whose mass is several hundred times that of the electron. Its partner is the bottom quark.

ANSWER: **top** quark [prompt on t]

[10] Rebban (“RAIB-hon”) and Brunner have found strong evidence for this hypothetical composite particle, which does not contain quarks and consists of a collection of the particles that mediate the strong force.

ANSWER: **glueball** [or **gluon ball**]

[10] This other hypothetical particle interacts only with gravity, as opposed to its counterparts, which also experience the weak interaction. If these particles existed, it would mean that every fermion had both left- and right-handed chirality (“kye-RAL-ih-tee”).

ANSWER: **sterile neutrinos** [do not accept or prompt on “neutrinos”]

<Physics>

8. Hubert H. Humphrey and Elmer Benson shepherded the merger of this state’s Farmer-Labor Party with its Democratic Party in 1944. For 10 points each:

[10] Name this state where Farmer-Labor governor Floyd Olson put down a 1934 Teamsters strike in Minneapolis after police shot at truck drivers on “Bloody Sunday.”

ANSWER: **Minnesota**

[10] In the 1934 *Blaisdell* case, the Supreme Court ruled that the emergency of the Great Depression meant that Olson’s moratorium on foreclosure did not violate this constitutional clause. Daniel Webster argued for the strength of this clause in *Dartmouth College v. Woodward*.

ANSWER: **Contract** Clause [or Obligation of **Contracts** Clause]

[10] As Hennepin County Attorney, Olson filed a public nuisance injunction against the antisemitic *Saturday Press*, leading to this Supreme Court case that found prior restraint of the newspaper in violation of the First Amendment.

ANSWER: ***Near v. Minnesota***

<American History>

9. Daniel Goldreyer applied four layers of house paint on a painting of this title during an incompetent restoration detailed in Barbara Visser’s film *The End of Fear*. For 10 points each:

[10] Name this series of abstract paintings whose third entry was slashed by a vandal who tried to repeat the act ten years later but settled for destroying the artist’s *Cathedra* instead. The attacker of another entry in the series accused it of “perverting” the German flag.

ANSWER: ***Who’s Afraid of Red, Yellow, And Blue***

[10] The *Who’s Afraid of Red, Yellow, And Blue* paintings feature the characteristic “zips” of this abstract expressionist, whose *Onement VI* (“wun-ment six”) was bought by Microsoft co-founder Paul Allen for 43.8 million dollars.

ANSWER: Barnett **Newman**

[10] *Who’s Afraid of Red, Yellow, And Blue III* and *Cathedra* were vandalized in this city’s Stedelijk (“STEh-duh-lick”) Museum. Its national museum, the Rijksmuseum (“RIKES-museum”), is home to *The Night Watch*, which was painted in this city by Rembrandt.

ANSWER: **Amsterdam**

<Painting/Sculpture>

10. Answer the following about some bad characters from English literature, for 10 points each.

[10] Mr. Wiseman and Mr. Attentive discuss the life of the title character in this author’s *The Life and Death of Mr. Badman*. He also wrote the allegory *The Pilgrim’s Progress*.

ANSWER: John **Bunyan**

[10] The “Manichaeian Millenarian” Mr. Toobad has to be fished out of a moat in one scene of this satire by Thomas Love Peacock, which depicts Percy Shelley as Scythrop Glowry.

ANSWER: ***Nightmare Abbey***

[10] Mankind’s “Bad Angel” competes with his “Good Angel” for his soul in *The Castle of Perseverance*, a 15th-century example of this genre. *Everyman* is another play in this genre.

ANSWER: **morality** plays [or **interludes**]
<British Literature>

11. The gymnosophist Sisimithras cares for Queen Persinna's daughter Chariclea in an ancient Greek novel named for this region by Heliodorus of Emesa. For 10 points each:

[10] Name this region where Zeus attends banquets according to the *Iliad*, whose lost sequel is named for this region. Herodotus claimed that a meat-producing meadow called the "table of the sun" lies in this region, which Memnon rules.

ANSWER: **Ethiopia** [or **Aethiopia**; accept **Aethiopsis**; accept **Aethiopika** or *The Ethiopian Story*; prompt on **Meroë** or Kingdom of **Kush** or **Kuluš** by asking "what name did Herodotus use for that region?"]

[10] In the real Ethiopia, a rock-hewn church at Lalibela is named for this saint, who is celebrated by both Christians and Muslims on his Balkan feast day. In the *Golden Legend*, this patron saint of England slays a Libyan dragon.

ANSWER: Saint **George** [or Saint **George** of Lydda; or Saint **Geórgios**; or **Dorde**; accept **Durdevdan**; accept variants]

[10] In the Soninke *Dausi* epic, Lagarre uses one of these objects called Tabele to raise the dragon-encircled city of Wagadou from the sand. The Japanese goddess Benten stops an angry five-headed dragon while carrying one of these objects.

ANSWER: musical **instruments** [accept **drums**; accept short-necked fretted **lutes**; accept **biwa** or **pípá**]
<Mythology>

12. This minister launched the Proton company in 1983 as a joint venture with Mitsubishi to develop a national automotive industry. For 10 points each:

[10] Name this prime minister who dismissed and prosecuted his deputy Anwar Ibrahim on trumped-up charges in 1998. This man curbed legal immunity for royalty in 1993 after a regional sultan beat up a local field hockey coach.

ANSWER: **Mahathir Mohamad** [accept either name]

[10] Voters in this country returned Mahathir to office in 2018 elections after a scandal involving incumbent Najib Razak's embezzlement from the 1MDB fund.

ANSWER: **Malaysia**

[10] Lee Kuan Yew, the first leader of this country, called Mahathir an "ultra" for his aggressively anti-Chinese stance on Malaysian race relations. Malaysia expelled this city from the federation in 1965.

ANSWER: **Singapore**

<World History>

13. In May 2019, Malay et al. used interactions between these two elements to assemble a snub cube out of a dodecameric protein complex. For 10 points each:

[10] Identify these two elements that form a semicovalent interaction with a bond energy of approximately 50 kilojoules per mole. Interactions between these two elements are used to form a common type of self-assembled monolayer.

ANSWER: **gold** AND **sulfur** [accept in either order; or **Au** AND **S**]

[10] More specifically, the sulfur in the gold-sulfur interaction is part of this functional group with formula R-SH, the sulfur analogue of hydroxyl groups.

ANSWER: **thiols** [or **mercaptans**; or **sulfhydryl** groups]

[10] The substrate of a self-assembled monolayer can be formed through the "chemical vapor" or "physical vapor" forms of this process of applying thin films to a surface.

ANSWER: **deposition** [accept chemical vapor **deposition**; accept physical vapor **deposition**; prompt on **CVD** or **PVD** by asking "what does that stand for?"]

<Chemistry>

14. In the first scene of Act II of this play, washerwomen call the protagonist “the one with sand at her breast” as they discuss her barrenness. For 10 points each:

[10] Name this play by Federico García Lorca whose title woman exclaims “I myself have killed my son!” after strangling her husband in its final scene.

ANSWER: **Yerma**

[10] *Yerma* is part of a “Rural Trilogy” that Lorca nicknamed for this untranslatable word. Lorca’s essay on the “Play and Theory of” this word popularized its connection with flamenco music and discusses the awareness of death that characterizes this creative force.

ANSWER: **duende** [prompt on literal translations like elf]

[10] Lorca’s essay claims that the “most impressive effects” of *duende* appear in this deadly sport. Lorca wrote a lament on the death of a toreador killed in this sport.

ANSWER: **bullfighting**

<European Literature>

15. The death of this state’s senator Bertie Milliner allowed its premier to controversially appoint Albert Field, giving the opposition a majority and leading to “The Dismissal” of Prime Minister Gough (“goff”) Whitlam. For 10 points each:

[10] Name this state that was led for almost two decades by “the hillbilly dictator” Joh Bjelke-Petersen (“Joe BYELL-kee Petersen”). Eddie Mabo fought this state in a 1992 court case that struck down the concept of terra nullius.

ANSWER: **Queensland** [accept *Mabo v Queensland*]

[10] Bjelke-Petersen launched the failed “Joh for Canberra” push in 1987, leading to a sweeping victory for this left-wing party led by Bob Hawke. This party shares its name with a British party led by Clement Attlee.

ANSWER: Australian **Labor** Party [or **ALP**; or the **Labour** Party]

[10] During the “Night of the Long Prawns,” Bjelke-Petersen stymied Whitlam’s attempt to flip a senate seat by offering Vince Gair the ambassadorship to this country. Convicts from this modern-day country rose up in New South Wales during the Castle Hill Rebellion.

ANSWER: **Ireland**

<European History>

16. This type of structure names a Buddhist temple in Xī’ān (“shee-ahn”) that houses the fingerbone of the Sakyamuni Buddha. For 10 points each:

[10] Name these structures that title a Zhìyǐ (“jurr-ye”) meditation manual “to the sublime.” The multiplicity of teaching is illustrated by 84,000 of these structures, which also title a text that asks questions like, “Why has the western barbarian no beard?”

ANSWER: dharma-**gates** [or dharma-**doors**; or dharma-**barriers**; or Fǎmén; or dharma-**pariyāya**; accept *The Gateless Gate* or *The Gateless Barrier* or Wúménguān or Mumonkan]

[10] Cloud Gate Dance Theatre has retold the legends of rituals like tomb sweeping on this island, where the Pure Land monastic movement Fó Guāng Shān is based. This island’s Lóngshān Temple in Taipei is a bastion of folk religion.

ANSWER: **Taiwan** [accept **Republic of China** or **ROC**; accept **Zhōnghuá mínguó**; accept **Formosa**]

[10] According to Charles B. Jones, Buddhist sects in Taiwan that engage in this practice often call themselves “Confucian” or “literati.” Geraldine Cummins’s *Swan on a Black Sea* describes this practice, which Déjiào (“duh-JYOW”) adherents do with a planchette.

ANSWER: **spirit writing** [or **automatic writing**; or **psychography**; accept **fújī**; prompt on **writing**; accept equivalents about letting **ghosts write** through you; prompt on **mediums** or **spiritualism** or holding a **seance** or **divination** or related answers; do not accept or prompt on “speaking in tongues”]

<Religion>

17. This process can be classified as endocrine if it affects cells in a distant part of the body. For 10 points each:

[10] Identify the term for this general cellular process, whose transduction often proceeds through a phosphorylation cascade. This process allows cells to respond to their environment and communicate with other cells.

ANSWER: cellular **signalling** [or **signal** transduction; or **signalling** pathways]

[10] In contrast to endocrine signaling, juxtacrine signalling occurs between cells displaying this phenomenon. This phenomenon between cells is often facilitated by desmosomes or cadherin–catenin complexes.

ANSWER: cell–cell **adhesion** [or cell-extracellular matrix **adhesion**; or cell **attachment**; or cellular **contact**; prompt on answers referring to cells **interacting** with each other or cells **touching** each other or cells otherwise in close proximity]

[10] The prototypical example of juxtacrine signalling is this signalling pathway inhibited by Numb and triggered by neighboring cells expressing either Delta, Jagged, or Serrate. Its namesake protein forms a complex with CBF1 and Mastermind.

ANSWER: **Notch** pathway

<Biology>

18. Albanian sworn virgins, the Polynesian fa'afafine (“fa-ah-fa-FEE-nay”), and Native American two-spirited people are some of the “third” examples of this cultural category. For 10 points each:

[10] Name this set of characteristics relating to expressions of masculinity and femininity. This cultural category is distinct from biological sex.

ANSWER: **gender** [accept **gender** expression; accept third **gender**]

[10] This term refers to transgender or intersex people recognized as a third gender on the Indian subcontinent. Unlike kothis, people with this distinction live in intentional communities and developed a secret language called their namesake Farsi.

ANSWER: **hijra** [accept **Hijra** Farsi]

[10] The Bugis (“BOO-giss”) ethnic group from this country are unique in having five well-defined genders, including the *calalai* who are assigned female at birth but take on the roles of heterosexual males. This is the more populous of the two countries discussed in Clifford Geertz’s (“GURTS-iz”) *Islam Observed*.

ANSWER: **Indonesia** [or Republic of **Indonesia**]

<Social Science (Anthropology)>

19. An ode in this oratorio praises “the huts that shelter us, the wool that covers us, the food that nourishes us.” For 10 points each:

[10] Name this oratorio. After *The Creation*, this oratorio was the second collaboration between Gottfried van Swieten and its composer, who unfortunately criticized part of van Swieten’s libretto as “Frenchified trash.”

ANSWER: *The **Seasons*** [or *Die **Jahreszeiten***]

[10] Van Swieten collaborated on the oratorios *The Seasons* and *The Creation* with this Austrian classical composer and “father of the symphony.”

ANSWER: Franz Joseph **Haydn**

[10] Haydn’s insult “Frenchified trash” may allude to how van Swieten admired this Belgian-born French composer of *opéra comiques* such as *Zémire et Azor* and the “rescue opera” *Richard Cœur-de-lion* (“ree-shard curd-lee-ON”). Henri Vieuxtemps’s (“on-REE vyoo-TAWM’s”) Fifth Violin Concerto borrows themes from this composer’s opera *Lucile*.

ANSWER: André **Grétry**

<Classical Music>

20. D. H. Lawrence’s *Studies in Classic American Literature* mocks the “sententious Johannus” who interrupts one of these events, which Lawrence says he’d rather experience than “have most people ‘like’ me.” For 10 points each:

[10] Name these events that Richard Henry Dana described Sam and John experiencing while Thompson yells that “Jesus Christ... can’t help you.” An 1850 law targeting these events was spurred by a novel its author wrote after *Redburn*.

ANSWER: **flogging** [or **whipping**; prompt on less specific answers indicating corporal punishment in the navy]
(The Richard Henry Dana memoir is *Two Years Before the Mast*.)

[10] In another novel, Steerkilt plans to kill Radney in revenge for being flogged, but is killed himself by this character. A dying man tells this figure: “from hell’s heart I stab at thee; for hate’s sake I spit my last breath at thee.”

ANSWER: **Moby Dick**

[10] Herman Melville decried the practice of flogging in the aforementioned novel titled for a jacket of this color. An entire chapter of *Moby Dick* discusses this color of the title whale.

ANSWER: **whiteness** [accept **White-Jacket** or “The **Whiteness** of the Whale”]
<American Literature>

21. This musician proposed that working people make a stand to control the title institutions in “Banks of Marble.”
For 10 points each:

[10] Name this folk musician known for writing “If I Had a Hammer” as a member of The Weavers.

ANSWER: Pete **Seeger**

[10] Seeger is famous for covering “This Land is Your Land,” a song written by this ardent leftist and Oklahoma native. This folk musician is known for his songs about the Dust Bowl, and for his guitar labeled “this machine kills fascists.”

ANSWER: Woody **Guthrie** [accept Woodrow Wilson **Guthrie**]

[10] While living in Greenwich Village, Seeger and Guthrie performed on the radio program *Back Where I Come From* along with this other musician. This 12-string guitar virtuoso is famous for “Midnight Special” and “Cotton-Fields.”

ANSWER: **Lead Belly** [or Huddie William **Ledbetter**]

<Other Arts (Music)>