**Chicago Open ~~2020~~ 2021:** “We probably needed the extra year to finish it anyways.”

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**Packet by The Editors (8)**

TOSSUPS

1. **In a short story, the narrator is surprised to learn that some of these things were “proved to be of ice” after “wheelbarrows” and “baggage-waggons” of them are deemed to be “worn-out trumpery.” In the preface to a volume of stories, the author calls a number of these objects once owned by Samuel Ripley “bits of magic looking-glass” and says they contain “images of a vanished century.” These objects, which are deemed to be “useless bawbles” in the fairy tale “Earth’s Holocaust,” are described by the conductor Mr. Smooth-It-Away as a solid foundation for a (\*)** bridge over the Slough of Despond in the short story “The Celestial Railroad.” The narrator of another work finds a 100-year old one of these objects made by Jonathan Hue alongside a red cloth that has lost its gold embroidery to time. For 10 points, what kind of object is found by the narrator of the prefatory section “The ­Custom-House,” which provides the frame story to *The Scarlet Letter*?

ANSWER: **book**s [or **pamphlet**s or **manuscript**s]

<Short Fiction, Ike Jose>

2. **A number of sepoys revolted against this dynasty in the Ispah Rebellion on account of ethnic strife in the city of Zaitun (“zye-TOON”). A syncretic version of Islam was promoted to help pacify this dynasty’s borderlands by its minister Sayyid Shams al-Din Omar. The nickname “He who fled from the *taruk*,” or Turks, was given to the Burmese king Narathihapate (“nuh-rah-thee-hah-puh-tay”) after he refused to fight an invasion by this dynasty’s governor Nasr al-Din. Two “commanders of ten thousand” are credited with murdering this dynasty’s corrupt Uzbek minister (\*)** Ahmad al-Fanakati. The *semu* (“suh-moo”) caste provided most of the staff of this dynasty’s Grand Secretariat. Its “four-class” system heavily favored foreigners, such as Turks and Persians, driving the resentment behind its overthrow in the Red Turban Rebellion. For 10 points, name this dynasty which brought foreigners to its capital of Shangdu, or Xanadu, where Marco Polo visited its ruler Khubilai Khan.

ANSWER: **Yuan** dynasty

<World History, Will Alston>

3. **During one battle at this location, the Gileadites under Jephthah slaughtered 42,000 Ephraimites who were unable to pronounce the word "Shibboleth." Before leaving in a fiery chariot, Elijah told his followers the Lord had ordered him to travel to this location. After witnessing a miracle at this location, the servant Gehazi was afflicted with leprosy as punishment taking silver and fine clothes as payment. The tribes of Gad, Manasseh, and Reuban set up an altar at this location to serve as a "witness" between them and the rest of Israel. After an (\*)** axehead is lost at this location, it is retrieved by Elisha throwing a stick into the waters to make it float. Ben Hadad's general Namaan was cured of leprosy after he purified himself seven times at this location. Mirroring an earlier miracle at the Red Sea, this body of water was split in two, after which a stack of 12 stones was erected as a monument. For 10 points, name this river which the Israelites crossed to enter the promised land.

ANSWER: **Jordan** River

<Misc Belief, Brad McLain>

4. **Philippe Flajolet pioneered an “era” of these functions in combinatorics, during which they were used to define the distribution under a Brownian excursion and the Tracy–Widom distribution. One of these functions’ value at the origin is given by: one over, quantity, three to the two-thirds power times the gamma function of two-thirds, end quantity. These functions exhibit jumps in their asymptotic behavior as their argument crosses their three anti-Stokes lines and three Stokes lines. These functions are the eigenfunctions of the Schrödinger equation for the triangular potential well used in semiconductor physics. The equation (\*)** "second derivative of y equals x times y” is satisfied by these functions, which were introduced by their namesake to analyze rainbows. These functions are denoted Ai(*z*) and Bi(*z*). The behavior of wavefunctions near turning points in the WKB method is modeled by, for 10 points, what functions named for a 19th century British astronomer?

ANSWER: **Airy** functions [or **Ai**(z); accept **Bairy** functions or **Bi**(z)]

<Other Science: Maths, Joseph Krol>

5. **An object owned by this god titles a book by Francis Cook which ends by explaining its meaning as “not just that we are all in it together” but “we all [emphasize] *are* it.” That object owned by this god was illustrated by arranging eight mirrors in an octagon, then placing one mirror above and one below, by the Huayan patriarch Fazang (“fah-zang”). A possession of this god created by a “cunning artificer” is used in the *Avatamsaka*, or *Flower Garden Sutra*, as a metaphor for the origin of the universe from “dependent origination” because infinite reflections can be seen on its jewels. In Mahayana Buddhist tradition, this god is known as (\*)** Sakka and is regarded as the original ruler of the thirty-three *devas*. Many Mahayana texts liken the interpenetration of all reality to the magnificent net which adorns this god’s palace on Mount Meru. For 10 points, name this Vedic god who used his *vajra* to free the world’s waters from the serpent Vritra.

ANSWER: **Indra** [accept **Indra**’s net; accept **Sakka** or **Sakra** before either is mentioned]

<Theology/Practice, Will Alston>

6. **A book co-written by this artist and Mirko Ilić (“MEER-koh IL-eech”) ends with a “Forward” that quotes a passage from *The Charterhouse of Parma* describing a caricature of the Archduke painted by Antoine-Jean Gros. For one series, this artist depicted a brown lab sitting next to a pair of sandaled feet and an Olivetti typewriter. Albrecht Durer’s watercolor of a European Roller inspired this artist to include a colorful wing in his portrayal of a crouched, silhouetted figure enveloped in glowing orange light. This artist of the cover of Tony Kushner’s *Angels in America* overlaid colorful striped lines across the word “Together” for his final project, inspired by COVID-19. In the wake of (\*)** 9/11, this artist added the words “More Than Ever” to his most enduring image, whose layout was inspired by Robert Indiana’s *LOVE*. For 10 points, which recently-deceased graphic designer created the “I Love New York” logo?

ANSWER: Milton **Glaser**

<Painting/Sculpture, Itamar Naveh-Benjamin>

7. ***Specific historical term required*. In a section on “Satanic Mills,” one treatise argues that an institution which administered [emphasize] *these programs* on the parish level reversed the “positive direction” of Gilbert’s Law. A so-called “crusade” against these programs in the 19th century was pushed by the UK’s Local Government Board to reduce the cost of union administration. The argument that one of these programs created in 1795 in Berkshire represented the English gentry’s attempt to avoid becoming a “mere appendage of the market” appears in (\*)** *The Great Transformation* by Karl Polanyi, which analyzes one of them called Speenhamland (“SPEEN-um-land”). These programs were severely curtailed by an 1834 Poor Law which instead promoted their counterparts, which were administered in workhouses. For 10 points, what programs helped people earn a living through work in the countryside, as contrasted with “indoor” counterparts?

ANSWER: **outdoor relief** programs[or **outrelief**; accept **Speenhamland** System before “Speenhamland”; prompt on relief, or poor relief, or public relief, or charity, or assistance programs, or Poor Laws, or aid-in-wages, or work programs; reject “welfare”]

<Post-500 Euro History, Will Alston>

8. **A poem by this author describes the “appealing face” of a young man who drifts as if “hypnotized...by the very illicit pleasure he has had.” Another poem by this author describes two male lovers who “hid from each other, we two, terrified” even though “our bodies sensed and sought each other out.” This poet of “In the Street” and “On the Stairs” was introduced to an English-speaking audience by E. M. Forster, who had a one-sided crush on him. Another of this author’s poems declares that “you’ve (\*)** wasted your life here, in this small corner” and that “You won’t find a new country, won’t find another shore.” This poet suggests “don’t degrade yourself with empty hopes like these” and describes the “exquisite music” of Bacchus’s “invisible procession” in a poem which tells the title general “Say goodbye to her, to the Alexandria you are losing.” For 10 points, name this poet who wrote “The City” and “The God Abandons Antony” in Greek.

ANSWER: Constantine **Cavafy** [or Konstantinos **Kavafis**]

<Poetry, Will Alston>

9. **The orientation of this vector to the interface between a substrate and the material of interest is used to classify surface anchoring states, which strongly affect the material’s electro-optical properties. The Q-tensor, which is used to model materials in which Saturn ring defects occur, is defined using the outer product of this vector with itself. The partials of components of this quantity with respect to different directions define the splay, twist, and bend curvature strains used to write the Frank–Oseen free energy density. Topologically stable line defects called (\*)** disclinations are classified by how much this quantity rotates in one path around them. This vector aligns with an applied field in the Frederiks transition. In cholesteric phases, the pitch is the distance it takes for this vector to rotate once around the helix it traces out, while in nematic phases molecules tend to be parallel to it. For 10 points, name this vector equal to the average alignment of molecules in a liquid crystal.

ANSWER: **director**

<Physics, Jonathen Settle>

10. **One of these vehicles made entirely out of carbon fiber and called the Nemesis One is being designed by the firm VPLP and has a price tag of 95 million dollars. A more economical version of these vehicles is the massive Yankee Freedom III, which is currently the only way one can approach the unfinished Fort Jefferson. The explorer Thomas Bowrey helped import the name for these vehicles into the English language, which comes from the Tamil for “tied wood.” Many enthusiasts tried to take pictures of a stealth version of one of these vehicles built by Lockheed in the 1990s called the (\*)** Sea Shadow, which inspired the fortress of newspaper magnate Eliot Carver in *Tomorrow Never Dies*. Austronesian peoples invented these vehicles, which are typically designed to have much shallower drafts than their more conventional counterparts, allowing them to save on fuel costs and minimize water resistance. For 10 points, name this type of boat with two equally balanced hulls.

ANSWER: **catamaran**s [accept answers which indicate a boat with **two hull**s before “two”; accept hydrofoil **catamaran**; prompt on boat or ferry or hydrofoil boat by saying “be more specific about its shape”; prompt on yacht by saying “what kind of design does the yacht have?]

<Modern World, Ike Jose>

11. **This instrument provides the nickname of the primary artist behind the 2017 album *Parking Lot Symphony*. The theme song of NPR’s *All Things Considered* was composed by yet another musician who primarily plays this instrument and the didgeridoo, “Pinecone” Wycliffe Gordon. A contemporary player of it is called [this instrument] “Shorty.” Another group led by a player of this instrument featured Tex Beneke (“BEN-uh-kee”), who played in a “ghost army” dedicated to performing songs popularized by him, such as one that begins (\*)** “Mister, why’d you call up, what you doin’ tonight?” The sound of adults in the *Peanuts* movie comes from this instrument playing with a mute inserted. A swing-era big bandleader who played this instrument popularized the standards “Chattanooga Choo Choo” and “In the Mood.” For 10 points, name this brass instrument played by Glenn Miller and Slide Hampton.

ANSWER: **trombone** [accept **Trombone** Shorty]

<Other Arts: Jazz, Will Alston>

12. **A group of alien visitors are given this substance and listen to music by Sun Ra and John Coltrane in a story by Emmanuel Dongala. The protagonist murders Moudiongui (“moo-dee-ON-gwee”), who gathers the finest varieties of this substance, in the novel *Memoirs of a Porcupine*. This substance titles a novel whose protagonist is asked to judge which of a man’s three wives should be given to the wizard who revived him. In yet another novel, fifty containers of this substance are part of the bride price which is paid during the (\*)** *uri* ceremony for Akueke (“ah-KWE-kay”). A character who produces this substance gives the protagonist of one novel a magic egg which generates enough food to end a famine. Unoka is broke and lazy because he wastes all his money on this substance in *Things Fall Apart*, in which Okonkwo uses a skull to drink it during feasts. For 10 points, name this alcoholic beverage produced by a tapster in Dead’s Town in a novel by Amos Tutuola.

ANSWER: **palm wine** [accept “Jazz and **Palm Wine**” or *The* ***Palm-Wine*** *Drinkard*; prompt on wine; prompt on alcohol before “alcoholic”]

<Misc. Lit, Will Alston>

13. **A mouse model of this disease is created using intra**·**peritoneal injections of *Lactobacillus casei*** **(“LACK-toe-buh-SILL-us KAY-see-eye”) cell wall extract. This disease causes erythema at B**·**C**·**G scars and periungual desquamation. It’s not toxic shock, but it presents similarly to COVID-induced M**·**I**·**S-C. Low albumin and sterile pyuria are part of the A**·**H**·**A supplemental laboratory criteria for this disease’s incomplete form. It can cause limbal-sparing conjunctivitis. I**·**V**·**I**·**G prevents one sequela of this disease, which is screened for at 0, 2, and 6 weeks by echocardiography; that complication is (\*)** coronary aneurysm. Cervical lymph node swelling, rash, and swollen hands and feet are 3 of the “crash and burn” criteria for this disease, along with 5 days of fever. High-dose aspirin is used to treat this disease, which causes cracked red lips and strawberry tongue. For 10 points, name this vasculitis that often affects Asian kids.

ANSWER: **Kawasaki** disease [or **mucocutaneous lymph node syndrome**]

<Biology, Eric Mukherjee>

14. **This speech mentions the case of a man named McIntosh, who was “chained to a tree, and actually burned to death,” in discussing the fate of a land “lately famed for love of law and order.” This speech states that “although bad laws, if they exist, should be repealed as soon as possible,” they should still be “religiously observed.” After this speech was reprinted in the *Sangamon Journal*, its speaker’s law partner William Herndon noted that its fame spread far beyond the “limits of the locality.” In a nod to the recent murder of (\*)** Elijah Lovejoy and similar events, this speech argues that “mob violence” motivated by slavery threatens the “perpetuation of our political institutions.” This 1837 speech shares its name with an antebellum movement popular among the Transcendentalists which promoted public education. For 10 points, what Abraham Lincoln speech is named for a Greco-Latin word often used to denote advanced high schools in Europe?

ANSWER: **Lyceum** Address [or **Lyceum** Speech]

<American History, Will Alston>

**15. In a 2009 paper, Senju and Johnson argued that the effect named for this behavior is governed by a fast-track modulator which involves assessing this behavior in others through a subcortical route. In a study carried out by Farroni et al, 2 to 5 day old newborns were found to be more attentive to people who were engaged in this behavior, suggesting it is developed through social modeling. In one experiment, Nagasawa et al found that interspecies examples of this behavior initiated a release of oxytocin, indicating that this behavior may have co-evolved in humans and (\*)** dogs. Studies in Korean American children have found that different expectations for this behavior at home and at school frequently result in being perceived as untrustworthy by teachers. Failure to engage in this nonverbal behavior is the earliest predictor of an autism spectrum diagnosis. For 10 points, name this form of nonverbal communication that involves directing your field of vision at someone's face.

ANSWER: **eye-contact** [accept **directe**d **gaze**; prompt on gaze or similar answers indicating looking at something; prompt on answers indicating looking at someone or their face]

<Social Science: Psych, Brad McLain>

16. **This Latin phrase titles a work by Widukind of Corvey that uses Sallust as a model to discuss Otto the Great and other important Saxons. In a set of lectures, Hegel contrasted this phrase with its genitive counterpart to distinguish between “what has happened” and the “narration of what has happened.” Even though it functioned as a primary source, a text known by this phrase was used by Tacitus in a brutal parody to suggest that a ruler was responsible for the deaths of Gaius Pansa and Aulus Hirtius at Mutina. This phrase, which titles the fragmentary surviving work of (\*)** Ammianus Marcellinus, also names a first-person narrative that begins by noting how its author first raised an army at the age of 19. That text named for this phrase describes how its speaker was saluted as *imperator* 21 times and “restored liberty to the republic.” For 10 points, the funerary inscription of “divine” Augustus is known by what two-word Latin phrase meaning “things done?”

ANSWER: ***Res Gestae***

<Historiography, Ike Jose>

17. **This work asks “what chance has Jupiter against the lightning-rod, and Hermes against Credit-Mobilier” in a section calling Greek civilization the “historic childhood of humanity.” This work, whose final section ends by dissing Frederic Bastiat’s theories with the comment “it is impossible to pursue this nonsense any further,” calls the earth a “great laboratory” and the “basis of the community.” Etienne Balibar argued that this work is the beginning of its author’s epistemological rupture in a set of lectures which compared it to its author’s earlier (\*)** *Das Kapital*. Louis Althusser (“alt-hoo-SAY”) argues that this work outlines a three-step process in presenting the most mature version of its author’s dialectical materialism. This work, which was not published until 1939, outlines “fundamentals of political economy criticism” in seven hand-written notebooks. For 10 points, what ginormous unfinished work by Karl Marx is commonly known by a single-word German title?

ANSWER: ***Grundrisse*** *der Kritik der Politischen Ökonomie* [accept ***Fundamentals of Political Economy Criticism*** before the word "fundamentals"]

<Philosophy, Ike Jose>

18. **José Limón created one of these pieces using incidental music from *Abdelazar* to depict Othello. The solo piano version of a piece in this genre begins with the left hand stating the first instance of a four-note ostinato, beginning with F-sharp, then the staccato notes “A, C-sharp, A.” Another of these pieces begins with the theme [read slowly] “long G, A, F-sharp, E, long D” and was brought to prominence by first performance in 1902 by Ricardo Viñes (“VEEN-yays”). The first of the five works in *Ma mère l'Oye* (“mah mare LOH-yuh”) is one of these pieces for (\*) “**Sleeping Beauty.” The orchestrated version of one of these pieces begins with a solo for two valveless horns in G and was written for the composer’s friend Winnaretta Singer. These pieces often evoke the movements of *meninas* at the Spanish court, such as the one written by Gabriel Fauré. For 10 points, name this stately Baroque dance, an example of which was written by Maurice Ravel “for a dead princess.”

ANSWER: **pavane** [accept ***Pavane*** *for a Dead Princess*]

<Classical/Opera, Will Alston>

19. **Benjamin List’s group captured this compound in a chiral en་antio་pure imido**·**di**·**phosphor**·**im**·**idate catalyst, reversing the experiment that originally created it. Using an A**·**L**·**2**·**B**·**R**·**7 counter**·**ion in methylene bromide, Ian Krossing managed to crystalize this compound, showing it has fivefold symmetry at 40K and undergoes internal 6,1,2 hydride shifts at 86K. Saunders’ isotope perturbation experiments and proton N**·**M**·**R of fluoride derivatives of this compound suggested that it has a (\*)** static structure, a claim summarized in George Olah’s Nobel Lecture. To explain why solvolysis (“soll-VOLL-uh-sis”) of the 2-exo isomer of a certain compound was faster than the 2-endo isomer, Saul Winstein posited neighboring group participation to explain the formation of this species. Winstein suggested it has a three-center two-electron bond, while Herbert Brown suggested rapidly equilibrating intermediates. For 10 points, name this nonclassical carbocation, the subjection of a long dispute in chemistry.

ANSWER: 2-**norbornyl** cation [or 2-**norbornane** or 2-**norbornene**]

<Chemistry, Eric Mukherjee>

20. **This character uses the comparison of a small male frog amplifying his voice in a drainpipe to illustrate his disdain for the arts, claiming that artists are taking “one last stab at getting laid.” This character steals shitty weed from the house of his shady Uncle Pete, where he also watches a home decoration show called *At Home with Anna K*. This character’s last words are “I’m counting on you,” which he utters before being shot in the chapter “Airlock.” His best friend attends the (\*)** Martha Graham Academy while he goes to a school nicknamed “Asperger’s U.” While browsing a porn site, this character meets his love interest, who helps him create a race of green-eyed quasi-humans. This inventor of the deadly BlyssPlus pill gets his nickname from a red-necked bird he encounters while playing *Extinctathon*. For 10 points, name this member of MaddAddam who, in a 2003 novel by Margaret Atwood, loves Oryx.
ANSWER: **Crake** [accept **Glenn**]

<Long Fiction, Jack Mehr>

BONUSES

1. This component is abundant in the PKT, a crustal region of the Moon whose heat production has been linked to nearby mare volcanism. For 10 points each:

[10m] Name this component that has an unusually high concentration of incompatible elements. This component rich in thorium and uranium is found predominantly in the nearside hemisphere.

ANSWER: **KREEP** [accept answers indicating a mixture of **potassium**, **rare earth element**s, and **phosphorus**] (PKT is Procellarum KREEP Terrane)

[10e] Fractional crystallization of this feature produced the high levels of incompatible elements necessary to form KREEP. Thermal energy produced during accretion of the Moon produced this feature that has since solidified.

ANSWER: lunar **magma ocean** [or **LMO**; accept lunar **magmasphere**]

[10h] Based on the ages of this suite of rocks and the Mg-suite of rocks, a rapid lunar mantle cumulate is thought to have taken place after the lunar magma ocean solidified. This suite of pristine rocks gathered from the lunar highlands was a major component of primordial lunar crust.

ANSWER: **FAN** suite [or **ferroan anorthosite** suite; prompt on anorthosite suite]

<Other Science: Astronomy, Jonathen Settle>

2. For 10 points each, name these early modern logicians:

[10h] This Frenchman’s reform to Aristotelian logic was to divide it into the sub-practices of *invention* and *judgment*. Even after his death during the St. Bartholomew’s Day Massacre, he was wildly influential across Europe.

ANSWER: Petrus **Ramus** [accept **Ramism**]

[10m] After the death of Ramus, many scholars synthesized Ramists logic with the logic of this German philosopher, who authored a once-popular textbook on logic. His theological thought is contained in his *Loci Communes*.

ANSWER: Philip **Melancthon** [or Philipp **Schwartzerdt**]

[10e] This other logician called Aristotle's logic a “universal mathematics” in his *New Essays on Human Understanding*. As a mathematician, he created the integral symbol used in calculus.

ANSWER: Gottfried Wilhelm (von) **Leibniz**

<Philosophy, Ike Jose>

3. This collection was described as “the most extraordinary piece of wit and wisdom that America has yet contributed” in a letter by Ralph Waldo Emerson to its author. For 10 points each:

[10e] Name this collection which contains the poem “When Lilacs Last in the Dooryard Bloom’d.”

ANSWER: ***Leaves of Grass***

[10h] In his letter, Emerson declares “I greet you at” at this point in time to encourage Whitman to continue writing, and notes that Whitman “must have had a long foreground somewhere.” The specific phrase is required.

ANSWER: the **beginning** of a **great career** [prompt on beginning by asking “beginning of what?”; prompt on starting a job or beginning of a career]

[10m] *I Greet You At the Beginning of a Great Career* is the title of a book of correspondence between these two 20th century poets, one of whom was the other’s main publisher. After the Six Gallery reading, one of these poets telegrammed the other, offering to publish his works in San Francisco.

ANSWER: Lawrence **Ferlinghetti** AND Alan **Ginsberg**

<Poetry, Will Alston>

4. This leader came to prominence as a historian, writing such books as *Capitalism and Slavery* before entering politics to lead the People’s National Movement. For 10 points each:

[10m] Name this first post-independence Prime Minister of Trinidad and Tobago.

ANSWER: Eric **Williams**

[10e] Williams announced “I am for [this concept]” over the radio during a Trinidiadian period of unrest named for it. This two-word concept is indicated by a salute of raising a fist high, as done by Tommie Smith and John Carlos.

ANSWER: **Black Power** [accept **Black Power** Revolution]

[10h] Many protesters during the Black Power Revolution derided Williams using this hyphenated term, used by Trinidiadian academic Lloyd Best to describe the culture of the middle class in the recently independent Caribbean. Kenyan scholar Ali Mazrui used it to describe Africans for whom English was a first language.

ANSWER: **Afro-Saxon**

<World History, Will Alston>

5. Several of this director’s films star Machiko Ono, including *Suzaku*, in which Ono is part of a dissolving family that lives in rural Nara Prefecture. For 10 points each:

[10h] Name this director of the official film for the 2020 Tokyo Olympics. This director’s films on the theme of *mono no aware* include *Sweet Bean*, which focuses on a middle-aged purveyor of pastries in the Tokyo suburbs.

ANSWER: Naomi **Kawase** [or Naomi **Sento**; accept names in reverse order]

[10e] Many of Kawase’s films prominently feature these places, such as her film titled for a “Mourning” one, in which Ono plays a nurse who visits one of these places to grieve for her dead child. The title character of Miyazaki’s *My Neighbor Totoro* is a spirit who is the keeper of one of these places.

ANSWER: **forest**s [or **wood**s or **mori**; accept *The Mourning* ***Forest*** or *Mogari no* ***mori***]

[10m] Another of Kawase’s forest-focused films, *Vision*, features this actress playing Jeanne, who visits one to find a spirit. This actress starred in *Three Colors: Blue* and played Laszlo’s nurse Hana in *The English Patient*.

ANSWER: Juliette **Binoche**

<OArts: Film, Will Alston>

6. The book *Martin Markall, Beadle of the Bridewell* contains a probably-fictitious list of people who claimed this title, including Jenkin Cowdiddle, Puff Dick, and Cock Lorel. For 10 points each:

[10h] Identify this title granted to John Faa by King James V of Scotland. Other claimants to this title include the Kwiek (“kveek”) family of Poland and Florian Cioabă (“choh-AH-bah”) of Romania. A description is fine.

ANSWER: **King** of the **Roma**ni [or **King** of the **Travellers**, or **King** of the **Gypsies**, or **Gypsy King**, or **King** of the **Egyptian**s; accept any answer that indicates the **ruler** or **lord** of all **Roma** people; prompt on Pharaoh; reject “Roman king” or “King of Rome”]

[10m] The Kwiek family claimed that title on account of having ancestors among this group of the Roma, which predominates in the Balkans and Eastern Europe and is renowned for its smith and metal work.

ANSWER: **Kalderash** [prompt on Vlax Romani]

[10e] A 19th century King of the Roma from this country, Shibilis, wrote a book titled *A Concise Treatise on Lycanthropy*. This country’s leader Todor Zhivkov imposed severe restrictions on Roma political activity.

ANSWER: **Bulgaria** [or **Bǎlgarija** or Republic of **Bulgaria**]

<Post-500 Euro History, Will Alston>

7. In an interview with *Vanity Fair*, Geoff Dyer remarks on how attempts to revive this author are hampered by the odious attitudes in his essays, such as “Reflections on the Death of a Porcupine.” For 10 points each:

[10e] Name this author. In 1958, Penguin Books faced a U.K. obscenity trial for publishing a novel by him, which today is part of Penguin’s “Classics” series.

ANSWER: D. H. **Lawrence**

[10h] Lawrence’s literary reputation took a nosedive thanks in part to this writer’s remark that *Lady Chatterley’s Lover* was a “quasi-religious tract” about penis worship. This author wrote that “homosexuality was invented by a straight world struggling to deal with its bisexuality” in the book *Flying*.

ANSWER: Kate **Millett**

[10m] Lawrence’s reputation was better before the Sexual Revolution thanks largely to this critic, who praised Lawrence in books such as *The Great Tradition*.

ANSWER: F. R. **Leavis** [or Frank Raymond **Leavis**]

<Misc. Lit, Will Alston>

8. Biotin painting is one method of studying proteins that have regions with this property, which includes the entirety of alpha-synuclein and some regions of p·53. For 10 points each:

[10h] Name this property of some proteins or protein domains which do not have a fixed folded structure. Proteins with this structure are often studied in solution by N·M·R.

ANSWER: **intrinsically disordered** [or **intrinsically unstructured**; prompt on partial answer]

[10m] This term refers to protein folding intermediates that are compact but not tightly packed. They often show intact secondary structure but not stable tertiary structure.

ANSWER: **molten globule**

[10e] Intrinsically disordered regions of proteins are usually excluded from the final model created by this technique, which was used by John Kendrew on myoglobin and Rosalind Franklin on DNA.

ANSWER: **X-ray crystallography** [or **X-ray diffraction**]

<Biology, Eric Mukherjee>

9. Giovanni Sartori created a commonly used typology of systems of these entities. For 10 pints each:

[10e] Name these entities. Political scientists often divide American history into first, second, third, and further “systems” named for these entities, with such systems being divided by “realignment” events.

ANSWER: political **parties** [accept **party** systems]

[10m] Party systems may be determined by large-scale divisions between social groups on specific issues, which are known by this term. These divisions may be called “cross-cutting” when different social groups do not share consistent alignment with one another on issues.

ANSWER: **cleavage**s [accept cross-cutting **cleavage**s]

[10h] In a classic 1967 paper, this political scientist and Stein Rokkan argued that cleavages determined party systems in Western Europe. This neoconservative convert wrote *American Exceptionalism: A Double-Edged Sword*.

ANSWER: Seymour **Lipset**

<Social Science: Political, Will Alston>

10. For 10 points each, answer the following about problems that violinists encounter with their instruments:

[10e] A violinist’s bow often stretches in humidity because this material tends to expand, causing the violinist’s hand to change position. Most violin bows are made of wood, this material, and the rosin that coats it.

ANSWER: **horsehair** [prompt on hair; accept answers indicating the **hair** of **horse**s or equines, etc.]

[10m] Of the four strings on a violin, this one is usually the first to start to “go false” or sound wrong over time. The opening solo in Mendelssohn’s violin concerto is played entirely on this string.

ANSWER: **E** string

[10h] Violins will sometimes exhibit this issue, in which a string sounds false because, instead of sounding a note, the vibration matches the natural resonating frequency of the instrument’s body, causing the instrument to tremble. These issues are more common in cellos and can be eliminated with magnets.

ANSWER: **wolf** tones [or **wolve**s]

<Classical/Opera, Will Alston>

11. This author’s novella *Montauk* consists of diary entries describing two weekend trips with a woman to New Jersey. For 10 points each:

[10m] Name this author. The protagonist of a novel by this author is an engineer who writes in his diary about his prospects for surviving stomach cancer and whether his mistress Sabeth might actually be his daughter.

ANSWER: Max **Frisch** (The novel is *Homo Faber*.)

[10e] Max Frisch is an author from this European country, whose other authors include Gottfried Keller, the author of the *bildungsroman* (“BILL-doongs-roh-man”) *Green Henry*.

ANSWER: **Switzerland** [or **Helvetic** Confederation, or Confoederatio **Helvetica**, or **Suisse**, or **Svizzera**, or **Schweiz**; prompt on CHE]

[10h] The aging protagonist of Frisch’s novel *Man in the Holocene* posts a number of these objects on the wall to help deal with his memory loss. A technique named for these objects is discussed in the book *The Third Mind*.

ANSWER: **cutout**s of a text [or **cut-up**s or **snippets**; accept **cut-up**s or **cut-out**s or **snippet**s of any specific book; accept answers indicating parts of a **text** that have been **cut** out using scissors, etc.] (*The Third Mind* is by William S. Burroughs and Byron Gisin.)

<Long Fiction, Jack Mehr>

12. For 10 points each, answer the following about the history of U.S. balanced budget legislation:

[10e] Balanced budget advocates in the 1930s never got exactly what they wanted, but did manage to institute this idiotic legislative limit. This limit prompted a crisis in 2013 that nearly ended in a government shutdown.

ANSWER: **debt ceiling** [prompt on partial answers]

[10m] This document included a “Fiscal Responsibility Act” which would have instituted a federal balanced budget requirement. That was among its ten proposed laws, which also included a federal line-item veto.

ANSWER: The **Contract With America** [reject partial answers]

[10h] After Jerry Brown made balancing the budget a major issue of his 1980 primary campaign, this Senator authored a balanced-budget bill that came close to being passed. This conservative Democratic Senator was known for his iconic bowtie and horn-rimmed glasses.

ANSWER: Paul **Simon**

<American History, Will Alston>

13. This feature’s English name comes from an Old Norse word for a great serpent, whose shape is evoked by the winding limestone cliffs which terminate at the lighthouse of Llandudno (“HLAHN-dud-no”). For 10 points each:

[10h] Name this limestone headland in North Wales which juts into the Irish Sea. 4,000 years ago, its rich malachite ores made it home to the world’s largest copper mine.

ANSWER: The **Great Orne** [or Y **Gogarth**] (“Orne” is an Old Norse word for a wyrm, or great serpent.)

[10m] Early Modern British copper mining, on the other hand, centered on this English county, whose Alderley Edge mines have also been used since the Bronze Age. This county, which borders North Wales, also names a type of crumbly cheese.

ANSWER: **Cheshire** [accept **Cheshire** cheese]

[10e] Copper and tin have been mined for millennia in this county at the southwestern tip of England, which is the home of a Celtic language similar to Breton.

ANSWER: **Cornwall** [or **Kernow**]

<Geography, Will Alston>

14. For 10 points each, answer the following about the incredibly common and vexing predicament of OpenGL deciding to render a black screen.

[10m] One of the first things to check is that these programs are compiled and linked correctly. These programs come in two types: vertex ones that transform the mesh from local space to screen space, and fragment ones that compute the color of each pixel in the frame buffer.

ANSWER: **shader**s

[10e] A more unlikely scenario is that one of these things does not have a mipmap but the minification filter is trying to use one. These things are 2D images folded over a 3D object to add detail without having to manually specify tons of pixel colors.

ANSWER: **texture**s [or **texture map**s]

[10h] If turning off this process causes the scene to finally appear, then the triangles have the wrong winding number. This form of hidden surface removal eliminates surfaces whose normal points away from the viewpoint.

ANSWER: back**face culling** [prompt on visibility culling; reject “frustum culling” and “occlusion culling”]

<Other Science: Computer Science, Jonathen Settle>

15. João Gilberto’s (“zhuh-WOW zheel-BAIR-too”) recording of a song titled for this feeling is credited with establishing *bossa nova* music as a mainstream jazz genre. For 10 points each:

[10m] Give this untranslatable Portuguese word, often translated as “longing” or “melancholy,” but typically rendered in a musical context as “blues.”

ANSWER: **saudade** (“sao-DAH-jee”) OR (“sao-DAH-day”) [accept “Chega da **Saudade**”]

[10e] This Portuguese author’s “factless autobiography” *The Book of Disquiet* is littered with expressions of *saudade* by its protagonist Bernardo Soares. This author of *The Message* used dozens of different heteronyms.

ANSWER: Fernando **Pessoa**

[10h] A Cape Verdean singer with this surname made the best-known recording of “Sodade,” a Cape Verdean song expressing the same emotion. The Portuguese city of this name is the cultural center of the arid southern Alentejo (“ah-len-TAY-zhoo”) region and contains a well-preserved Temple of Diana.

ANSWER: **Évora** [or **Ebora**; accept Cesária **Évora**]

<Other Academic, Will Alston>

16. The letters M and P are used to designate molecules that have the axial form of this property when they have a helical shape. For 10 points each:

[10e] Name this property of some molecules in which they cannot be superimposed on their mirror images.

ANSWER: **chiral**ity

[10m] An important effect in chiral syntheses and chiral catalysis is this one, in which some chiral feature on a reagent or catalyst affects the distribution of chiral products.

ANSWER: **asymmetric induction** [or **enantioinduction**]

[10h] This autocatalytic reaction is the alkylation of a pyrimidine using di·isopropyl·zinc. This reaction can produce a highly enantio·pure product from a racemic (“ray-SEEM-ick”) input, which is why it’s studied to understand biological homo·chirality.

ANSWER: **Soai** reaction

<Chemistry, Eric Mukherjee>

17. In the 1940s, a massive revival in the production of these artworks occurred in Peru, where you can buy wooden examples of them that depict the Nativity and fold up into the shape of little barns or boxes. For 10 points each:

[10m] Name these depictions of devotional icons, common in the Baroque art of Latin America. Frida Kahlo was inspired by examples of them to create paintings depicting herself such as *The Wounded Deer*.

ANSWER: **retablo**s [prompt on votive paintings or ex-voto paintings]

[10e] Peruvian *retablos* are essentially miniature versions of these artworks, another example of which was sculpted by Nikolaus of Haguenau and painted by Matthias Grünewald.

ANSWER: **altarpiece**s [accept *Isenheim* ***Altarpiece***; prompt on paintings]

[10h] Many older *retablos* depict Christ in an example of this artist motif, which developed from the Byzantine *epitaphios* and shows Christ with festering wounds and a crown of thorns, but not crucified. A green curtain frames Petrus Christus’s odd depiction of this motif, which is inspired by a line in Isaiah 53:3.

ANSWER: the **Man of Sorrow**s motif [accept *Christ as the* ***Man of Sorrow****s*]

<Painting/Sculpture, Will Alston>

18. According to Andrew Lang's introduction to *The Secret Commonwealth*, the folklorist Robert Kirk was taken to serve this group instead of dying, explaining why his body was allegedly never found. For 10 points each:

[10h] Name this constituent group of the *daoine sìth* (“DOW-in SHEATH”), who are led by the Queen of Elphame. This group is marginally more benevolent than its counterpart, which includes bogies, bogles, and boggarts.

ANSWER: **Seelie** Court [or **subterranean wights**; or **invisible wights**; prompt on wights or fairies; reject the "Unseelie Court"]

[10e] The division of fairies into the Seelie and Unseelie Courts originates from the folklore of this country, whose other mythological creatures include a horse-like water monster that drowns those who ride on it, the Kelpie.

ANSWER: **Scotland** [prompt on United Kingdom, UK, or Great Britain]

[10m] Unlike nearly every other type of fairy, Kirk describes these members of the Seelie court as being particularly helpful, threshing grain and helping people move stones. These household fairies are known to sneak into sleeping people's homes to help with chores and can be befriended by leaving a saucer of milk on the hearth.

ANSWER: **brownie**s [or **broonie**s; or **brùnaidh**; or **gruagach**; or **brobne**; accept **ùruisg**; prompt on Lares]

<Legends, Brad McLain>

19. This man’s reforms include removing the then standard discount for audience members who showed up late or left a play early. For 10 points each:

[10e] Name this English actor and longtime manager of the Theatre Royal at Drury Lane. Supposedly, the expression “break a leg!” came about after he literally did so during a performance of *Richard III*.

ANSWER: David **Garrick**

[10h] Garrick is also credited with championing some women writers, such as staging this author’s of *The Discovery* and *The Dupe*. Her last play *A Trip to Bath* remained unperformed by Garrick.

ANSWER: **F**rances **Sheridan** [prompt on Sheridan]

[10m] Garrick also began the practice of imposing fines on actors who skipped dress rehearsals, including fining Charles Dibdin who skipped those of his own opera, *The Padlock. The Padlock*’s libretto was written by this Irishman, who shares his name with a pseudonym used by Jonathan Swift to author astrological predictions.

ANSWER: Isaac **Bickerstaff** [or Isaac **Biggerstaff**]

<Drama, Ike Jose>

20. This kingdom’s ruler Chairacha inaugurated a military tradition in the region by including 120 Portuguese gunmen in his army. For 10 points each:

[10m] Name this kingdom which also employed the Greek-born Constantine Phaulkon, who figured out that Persian merchants were using accounting schemes to trick its king into owing them money.

ANSWER: **Ayyuthaya** kingdom [or Anachak **Ayyuthaya** or **Ayudhyā**]

[10e] Unfortunately, there weren’t always many Portuguese gunners because the Burmese hired most of them, so Ayyuthaya kings hired a bunch of these people instead. These people were masterless samurai.

ANSWER: **ronin**

[10h] A rogue band of French troops helped people of this ethnicity during their revolt in the 1740s, which overthrew Burma’s Toungoo dynasty. After Burma’s next king, Alaungpaya. defeated these people, he made their French allies into an elite gunner corps under the Chevalier Milard.

ANSWER: **Mon** people

<CW/International History, Will Alston>