

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

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## TOSSUPS

1. In an essay titled “Is [this field] a Profession,” Abraham Flexner argued that it contains a “humanitarian and spiritual element” but lacks “professional spirit.” Harry Specht and Mark Courtney compared practitioners of this field to “Unfaithful Angels,” alleging that this field has been misguided by patriotism and a “psychiatric deluge.” A University of Houston professor of this field has written books such as *Dare to Lead* and *The Gifts of Imperfection* and gave the TED Talk “The Power of Vulnerability.” Professors of this field include Michael Payne and (\*) Brené Brown. The first U.S. professional school for this field was established at Columbia University in 1898 thanks to the efforts of Mary Richmond, the Charity Organization Society, and the broader Settlement Movement. Caseworkers are professionals trained in, for 10 points, what field, whose practitioners commonly work for CPS or in schools and usually have BSW or MSW degrees?

ANSWER: social work [or social workers; accept casework before “casework”; prompt on counseling or counselors or school counselors]

<Social Science: Socio/Anthro, Brad McLain>

2. In a novel, after a woman destroys one of these objects in despair, she spends her days raving “Raymond! Raymond! Thou art mine!” in confinement. Don Lorenzo’s request that Antonia stop using one of these objects is refused at the beginning of Matthew Lewis’s novel *The Monk*. The narrator supposes “the scene of my dying struggle has opened upon me” at the end of a novella titled for these objects in which Dr. Meurent revives a corpse via experimental blood transfusion. At the opening of (\*) Ann Radcliffe’s novel *The Italian*, Ellena uses one of these objects given her by Sister Olivia. Bertha plots to poison her telepathic husband Latimer in a novella titled for these objects by George Eliot. The title character of a short story yells “Never!...On earth! Never!” in reference to one of these objects, which he starts using on the same day he explains “sacred sin” to his congregation. For 10 points, Reverend Hooper wears a black one of what objects in a Nathaniel Hawthorne story?

ANSWER: veils [accept *The Lifted Veil* or “The Minister’s Black Veil”]

<Misc. Lit, Will Alston>

3. Time trajectories mapped by one version of this technique can be determined using SMACKS or HaMMY which assign states to a histogram of count vs time data. It’s not ELISA (“ee-LIE-zuh”), but lanthanides are used in a time-resolved variant of this technique used for drug screening. In this technique, the orientation factor varies from 0 to 4 but is often assumed to be 2/3rds. S·P·A·D arrays are used to image a confocal volume in the freely-diffusing form of a single-molecule variant of this technique, which more often affixes the molecules to a slide and uses TIRF (“turf”). The characteristic distance of this technique is raised to the sixth in the formula for its efficiency, allowing it to be used as a (\*) ruler. Cy3-Cy5 (“sigh-three-sigh-five”) and C·F·P·Y·F·P are popular pairs used in this technique, which requires that the emission spectrum for the donor overlap with the absorption spectrum for the acceptor. For 10 points, name this technique in which two molecules are labelled with chromophores to see if they interact.

ANSWER: FRET [or fluorescence resonance energy transfer or Forster resonance energy transfer; accept single-molecule FRET, smFRET, or that whole thing spelled out]

<Biology, Eric Mukherjee>

4. In the past decade, archaeologists have found dozens of megaliths in this range, such as 12,000-year-old griffins and dragons, as well as the Shoria megaliths. In 2012, archaeologists working in this mountain range found the bones of the first confirmed half-human, half-Neanderthal hybrid. Tattoos of leaping horses and deer, both common motifs of the Pazyryk culture of this mountain range, were found on a frozen mummy buried here. A site in Tibet called Xiahe (“shya-huh”) contains fossils of an archaic human subspecies named after a cave in this range, called (\*) Denisovan man. This range’s Ukok Plateau was where a so-called “Ice Maiden” was found. Sergei Starostin promoted a theory named for this range which claims that the Japanese, Tungusic, Mongolian, and Turkic families are linguistically related. For 10 points, name this Central Asian mountain range along the borders of Russia, Kazakhstan, China, and Mongolia.

ANSWER: Altai Mountains [accept Altaic languages] (The mummy is the “Siberian Ice Maiden.”)  
<Archaeology, Will Alston>

5. About halfway through this piece, the left hand holds a chord on A-sharp and C-sharp while the right hand ascends the keyboard in rapid chromatic trills. A biography by a non-DJ Alan Walker compares the passage leading to this piece’s conclusion -- which begins with the hands simultaneously playing two octaves of descending and ascending chromatic chords -- to its composer’s *Technical Exercises*. This piece revises and transposes the composer’s earlier A minor *Grande Fantaisie de Bravoure* based on the same *rondo* theme, which was also arranged for violin and piano by (\*) Fritz Kreisler. It is the third of a set of six studies written for Clara Schumann and revised in 1851. This piece takes its main theme from an Italian composer’s Violin Concerto No. 2 in B minor and evokes its namesake object by repeatedly playing the highest D-flat on the piano. For 10 points, what piece from Liszt’s *Grandes Études de Paganini* is named for the Italian word for “little bell?”

ANSWER: “La campanella” [or Étude No. 3 in G# minor from the *Grandes Études de Paganini*]  
<Classical/Opera, Will Alston>

6. In an experiment at CERN, these particles are confined with an anharmonic potential before they are injected autoresonantly at low longitudinal kinetic energy into a cloud of [emphasize] *different* particles generated by a Surko-type accumulator. A kicker deflects particles based on a pick-up’s measurement of their distance from the center of their orbit in a technique first used on beams of these particles called stochastic cooling. The AD deceleration ring supplies these particles to many experiments including AEGIS, which plans to measure g-bar, and ALPHA, which uses a bound state between them and particles with a lepton number of (\*) negative one to test CPT symmetry. These particles are produced by smashing their antiparticles into an iridium target at 26 GeV. Emilio Segrè and Owen Chamberlain won a Nobel for discovering these particles at the Bevatron. For 10 points, name these particles denoted p-bar that are bound to a positron in antihydrogen.

ANSWER: antiprotons [or p-bars until mentioned; prompt on antiparticles or antimatter] (The first clue refers to the ALPHA experiment.)  
<Physics, Jonathon Settle>

7. This artist contrasted naturalistic, moss-covered trees with an abstracted bed of orange leaves, painted using individual brushstrokes, in a landscape depicting the title *Birch Forest*. The vast majority of the canvas consists of a canopy of green, yellow, and blue dots in this artist's landscape *The Park*. While staying at Litzlberg Tavern this artist produced many square-shaped landscapes of Lake Attersee. Three panels titled *The Knight*, *The Expectation*, and *The Embrace* comprise a triptych by this artist which includes a (\*) swirling depiction of the Tree of Life and was painted for the Palais Stoclet ("pah-LAY stoh-KLAY"). The title mythological woman is shown nude with red hair, curled up in the fetal position, in this artist's *Danae*. Three Gorgons and the monster Typhoeus ("TY-pee-us") appear at the left of a painting by this artist which illustrates the themes of "Ode to Joy." For 10 points, name this artist of the *Beethoven Frieze*, the leading painter of the Vienna Secession.

ANSWER: Gustav Klimt

<Painting/Sculpture, Halle Friedman / Will Alston>

8. This poet contemplates "greedy ants" crawling over a hurt caterpillar in a poem about a "friend who still believes in heaven." This poet notes how "the one who has been abandoned" is always the "survivor" in a poem which begins by noting "In the story of Patroclus / no one survives." A third poem by this author takes the perspective of an organism whose "consciousness" is "buried in the dark earth," where "whatever returns from oblivion returns to find a voice." This author of "Celestial Music" wrote the collection *The (\*) Triumph of Achilles*, which contains an oft-anthologized poem whose speaker detests the "low, humiliating premise of union." That poem by this author asks "How can I be content when there is still that odor in this world?" after smelling the scent of the title flower. For 10 points, name this author of "The Wild Iris" and "Mock Orange" who won the Nobel Prize in Literature in 2020.

ANSWER: Louise Glück ("glick") [or Louise Elisabeth Glück]

<Poetry, Mitch McCullar>

9. Immigrants of this original nationality in the U.S. are most of the speakers of the Oral Archive Project at Texas Tech's Sam Johnson Center. The KKK was implicated in the shooting of an immigrant of this nationality in the town of Seadrift, Texas, which inspired Louis Malle's film *Alamo Bay*. A leader of this nationality rejected a promise of U.S. aid from the Seaborn mission and claimed to have been a baker at Boston's Parker House Hotel. People of this nationality with U.S. (\*) ancestry were given preferential immigration status by the American Homecoming Act of 1988. Most of the people of this nationality resettled by the Orderly Departure Program went to the U.S. including many Montagnards ("mon-tahn-YARDS"). People of this nationality were evacuated via operations named Babylift, New Life, and Frequent Wind. For 10 points, give this nationality of most "boat people" who came to the U.S. after the end of an intervention in 1975.

ANSWER: Vietnamese Americans [accept answers indicating Americans from Vietnam, including either North or South Vietnam] (Note: The phrase "nationality" is used because a number of the refugees were Chinese or ethnic minorities of Vietnam.)

<American History, Will Alston>

10. In a reply to Eric Gutkind's book *Choose Life*, this man stated “The word God is for me nothing more than the expression and product of human weaknesses.” This man wrote that he could only be considered religious with regards to “knowledge of the existence of something we cannot penetrate,” in his book *The World As I See It*. In the essay “Science and Religion,” this Spinozist stated, “Science without religion is lame, religion without science is blind.” In (\*) *The God Delusion*, Richard Dawkins contrasts supernatural religion with a type of non-theistic religion named for this man. A 1940 edition of *Time* magazine is the origin of a likely-fabricated quote allegedly from this man stating the Catholic church “stood squarely across the path of Hitler’s campaign.” For 10 points, name this man who quipped “God does not play dice with the universe” in an argument against quantum mechanics.

ANSWER: Albert Einstein

<Misc Belief, Brad McLain>

11. This kingdom sent troops to back Bhuvanaikabahu (“bhoo-VUH-nye-kuh-BA-hoo”) VII against Mayadunne (“mah-YAH-dun-nay”) of Sitawaka as part of its strategy to gain land during the Vijayabā Kollaya (“vee-JYE-uh-bah kol-LAH-yuh”), a period of disunity in the Kotte kingdom. A borrowed Persian term for “soldier,” *lasarin*, denotes local troops which this kingdom used to pacify occupied territory. While attempting to revise the Treaty of Bassein with a viceroy of this kingdom, the Muzaffarid sultan Bahadur Shah was thrown into the sea. A short-lived trading post, or (\*) “factory,” established by this kingdom was recaptured by a local *zamorin* in 1525. A term from this kingdom’s language for a spicy garlic marinade became the word “vindaloo.” This kingdom’s proxy wars with the Ottoman Empire and Venice featured the Battle of Diu (“jyoo”), at which it defended a fort from the Gujarat Sultanate and Kingdom of Calicut. For 10 points, which European kingdom conquered Goa in the 16th century?

ANSWER: Kingdom of Portugal [or Reino do Portugal]

<World History, Alex Fregeau>

12. A method for carrying out this task based on the arithmetic-geometric mean and Legendre’s identity for elliptic curves was discovered independently by Brent and Salamin. A sum over  $k$  of a complicated term whose denominator contains the expression “ $640,320$  raised to the  $3k$  plus  $3/2$  power” is evaluated in another method for this task based on the Heegner number 163. An algorithm that uses little space to perform this task in hexadecimal was discovered by Bailey, Borwein, and Plouffe. The Chudnovsky brothers’ algorithm for this task is used by Mathematica. This task can be performed by truncating the (\*) Ramanujan–Sato formula and taking the reciprocal of the result. This task is accomplished by counting the number of randomly dropped needles which cross parallel stripes in Buffon’s needle. The perimeter of a regular polygon inscribed in a circle can be used to perform this task. For 10 points, name this task often done with expressions like  $22/7$  and  $3.14$ .

ANSWER: approximating pi [accept reasonable equivalents, such as calculating the digits of pi, pi digit extraction, or computing pi]

<Other Science: Math, Iain Carpenter>

13. A novel set in one of these locations begins with the quote “Life’s like a penis; When it’s soft you can’t beat it; When it’s hard you get screwed.” In that novel, characters in one of these locations are often in conflict with the Blazers, including when they dispense of a hungry pervert named Sam by turfing him. One of these places is the setting of a novel in which the motto “Gomers don’t die” is among the 13 informal “laws” explained by the Fat Man to the protagonist (\*) Roy Basch. Another character living in one of these places explains how his tribe was “hypnotized by routine” when the government forced them to work on a dam. Samuel Shem’s novel *House of God* is set in one of these locations, as is a novel whose narrator detests the oppression of “The Combine” and smothers his friend to death with a pillow. For 10 points, identify these institutions, one of which houses Chief Bromden in *One Flew Over the Cuckoo’s Nest*.

ANSWER: hospitals [accept psychiatric hospitals, or mental hospitals, or psych wards, or mental asylums]  
<Long Fiction, Will Alston>

14. Manfred Eicher’s ECM label gained prominence by publishing one of this artist’s chamber jazz albums whose cover shows an orange-red sunset above distant blue mountains. Steve Gadd plays a drum solo over Michael Brecker’s sax vamp in the first piece of this bandleader’s album *Three Quartets*. This composer of the actual string quartet “Adventures of Hippocrates” appeared on Stan Getz’s album *Captain Marvel*, which is named for a song by this musician’s band. This musician won eight Grammys for duet albums recorded with (\*) vibraphonist Gary Burton, such as *Crystal Silence*. His most-recorded standard was introduced on his album *Light as a Feather* and, like an earlier piece by Miles Davis, was based on the adagio from Joaquín Rodrigo’s *Concierto de Aranjuez* (“con-SYAIR-toh deh ah-RON-hways”). For 10 points, name this recently-deceased jazz pianist who composed “Spain” and led the band Return to Forever.

ANSWER: Chick Corea [or Armando Anthony Corea]  
<OArts: Auditory, Will Alston>

15. One religious figure from this country denied claims she had been forced to sleep in a room full of decapitated animals in her book *From Goddess to Mortal*. Holders of one office in this country are forbidden from wearing footwear aside from red stockings and lose their position if they ever bleed. Although it was made illegal in a 1990 constitution, many young girls in this present-day country are still given away as *deukis* (“DEW-kees”), or holy temple prostitutes. An ethnic minority group in this country traditionally practices a form of esoteric Buddhism with a (\*) caste system and celebrates the almsgiving festival Samyak. That ethnicity, the Newar, also select premenstrual girls from this country to become vessels of Devi as the Kumari. A religious leader was born in this present-day country’s town of Lumbini after his mother experienced a dream of a white elephant. For 10 points, name this birth-country of Siddhartha Gautama, a majority-Hindu country in the Himalayas.

ANSWER: Nepal  
<Theology / Practice, Brad McLain>

16. An essay by this writer describes how he would sit in his room for hours at a time in pure darkness to deal with his adolescent depression, and is named for a “fascination with lenses” that came to inform his fiction. In one of his stories, a wastrel fakes an identity to collect the funds of a recently deceased man and uses it to create a “panorama island” of optical illusion. This author included a word association chart along with two characters’ reaction times in a story in which a district attorney investigates the murder of a woman, whose money was hidden under a dwarf tree. In another of his stories, a (\*) quadruple amputee plummets down a well to his death after he is sadistically tortured by his wife. In this author’s most widely read story, an ugly carpenter gropes women while hiding in the title piece of furniture. For 10 points, “The Caterpillar” and “The Human Chair” are by what Japanese author whose pen name honors an American mystery writer?

ANSWER: Edogawa Rampo [or Edogawa Rampo or Taro Hirai] (Edogawa Rampo’s name was inspired by Edgar Allan Poe.)

<Short Fiction, Itamar Naveh-Benjamin>

*Note to moderator: Please read the answer line carefully.*

17. **Description acceptable.** Features associated with the formation of a window where these structures are not present include near-trench plutons and localized adakite volcanism. The spinel-perovskite transition about 670 kilometers below the Earth’s surface slows down the movement of these structures. Viscous stresses supporting these structures induce shear traction along the base of plates. In the cold interior of these structures, olivine transforms into wadsleyite and ringwoodite at deeper regions than at standard conditions. These structures are the most prominent density anomalies in the (\*) mantle. In addition to their “suction,” these structures “pull” plates in one of two main gravity-driven mechanisms of plate motion. A region of heightened seismicity in these negatively buoyant structures is called the Wadati–Benioff zone. For 10 points, name these structures that drive mantle convection as they collide with denser continental structures at convergent boundaries.

ANSWER: slabs [or subducted tectonic plates; or subducted oceanic lithosphere; or subducted oceanic crust; accept answers that describe plate or crust that have sunk beneath the surface; prompt on subduction zones with “please give the physical structures within the subduction zone being referred to”; prompt on convergent plate boundaries before mentioned; reject answers mentioning “continental crust”]

<Other Science: Earth Science, Jonathen Settle>

18. In a posthumously published book, C.S. Nino argued against the idea of democratic obligation for retribution against this concept in Argentina, instead promoting a theory of deterrence. Another thinker argued that this concept was incompatible with Christian theology because Christians “ceded even to the Devil himself a celestial origin.” That thinker argued that the only discernible aspect of this concept is that it arises in connection with a political system in which “all men are equally superfluous.” In the conclusion of (\*) *The Origins of Totalitarianism*, Hannah Arendt argued that “we cannot conceive” of this concept, noting the paradoxical rationalization of it in *Religion Within the Bounds of Reason Alone*. For 10 points, what concept from Immanuel Kant’s philosophy is a supposed innate tendency for humans to defy universal moral law and irrationally violate the categorical imperative?

ANSWER: radical evil [or das radikal Böse; prompt on evil]

<Philosophy, Carpenter/McLain>

19. The Syriac monk Theodore of Antioch thrilled enthusiasts of this activity by translating a treatise on it by an Islamic author thought to be the physician Hunayn ibn Ishaq. Some participants in this activity would be “enseamed” to reduce fat levels and increase their energy and were equipped with a thin leather strap called a jess. Different companions for this activity are matched with twelve different social orders in a tome often attributed to Dame Juliana Berners, the *Book of (\*) St. Albans*. Emperor Charles V received an essential component of this activity in tribute each year from the Knights of Saint John. Frederick II’s treatise on this activity explains how to raise *eyases* in the mews of a castle, where they would undergo molting. The participants in this activity who actually did the work were covered by a small leather hood until they were released to go after targets such as mallards. For 10 points, what ritzy medieval sport provides the nickname of Otto the Great’s son Henry? ANSWER: **falconry** [or **fowling**, or **hawking**; accept any answer to do with **falcons** or **hawks**; accept **hunting with birds**; accept Henry the **Fowler**; prompt on **hunting**]

<Euro History, Will Alston>

20. The brutal 2020 murder of a former leader of this organization has been attributed to the Gulf Clan. Since 2019, this organization has protested the extended detentions of hundreds of its members by the Amnesty and Pardon Chamber. This organization’s leader, who abandoned a 2017 presidential run due to heart conditions, was targeted in a foiled 2020 assassination plot thought to have been orchestrated by a dissident member of it known as “Paisa.” Challenges with this organization’s ongoing (\*) transition process led to the creation of the Second Marquetalia group, named for the independent republic where this organization was born after the implementation of Plan Lazo in the 1970s. In the past few years, this organization has transitioned to operating as the legal political party Commons. During a 2016 referendum campaign, Álvaro Uribe led opposition to a peace deal with, for 10 points, what former rebel organization led by “Timochenko” in Colombia?

ANSWER: **FARC** [or **Revolutionary Armed Forces of Colombia**-People’s Army or **Fuerzas Armadas Revolucionarias de Colombia**-Ejército del Pueblo; accept **Commons** or **Comunes** or **Common Alternative Revolutionary Force** before “Commons”] (The murder was of Rosa Mendoza.)

<Modern World, Jonathen Settle>

## BONUSES

1. For 10 points each, answer the following about the destabilization of indigenous polities in the American South:  
[10e] Prior to European settlement, the region had been in turmoil due to the collapse of the chiefdoms established by this culture. This broad Native American culture is best known for building the Cahokia Mounds.

ANSWER: **Mississippian** Culture [or **Mississippi** Culture; accept **SECC** or **Southeastern Ceremonial Complex**]

[10h] One of the surviving Mississippian chiefdoms, Guale (“GWAH-lay”), merged with this confederacy, which gained power by conducting constant slave raids against its neighbors. This confederacy later came into conflict with British settlers after the Goose Creek Men made a number of unfair slave deals with them.

ANSWER: **Yamasee** Confederacy [accept **Yamasee** War]

[10m] Other slave wars in the region include a conflict in which this Native American group was opposed by the Yamasee, Cherokee, and colonists. Afterwards, this group migrated north and joined the Iroquois.

ANSWER: **Tuscarora** people [or **Skarù:re**; accept **Tuscarora** War; prompt on **Shirt-Wearing** people]

<American History, Alex Fregeau>

2. This type of supply chain is susceptible to stock-outs because inventory is kept very low. For 10 points each:

[10m] Name this type of supply chain that requires freight forwarders to keep tight delivery schedules because it seeks to ensure goods are received exactly when they are needed.

ANSWER: **just-in-time** supply chain [or **JIC** supply chain]

[10h] When analyzing freight transportation systems, the Wardrop equilibrium model is used to perform this task for trucks on highways. A graph representing the transportation network, link performance functions, and an origin-destination matrix are used in this process to determine flow and travel time on each link.

ANSWER: traffic **assignment**

[10e] These things are indispensable to intermodal freight systems because they are uniform in size and are readily transferable from one mode to another. Types of these things include dry freight, flat rack, and open-top.

ANSWER: shipping **containers** [or intermodal **containers**; or shipping **boxes**; or freight **crates**; or **sea cans**;

prompt on **cargo**]

<Other Science: Applied/Data Science/Engineering, Jonathen Settle>

3. This composer invented the *stile agitato* (“STEE-lay ah-jee-TAH-toh”) by including *pizzicati* and tremolos in *The Combat of Tancredi and Clorinda*, which is collected in his eighth book of madrigals. For 10 points each:

[10e] Name this composer of the opera *The Coronation of Poppea*.

ANSWER: Claudio **Monteverdi**

[10m] Claudio Monteverdi coined the name for this style to distinguish his emphasis on the words of pieces, as opposed to the melodic emphasis of earlier composers. It is sometimes also called the *stile moderno*.

ANSWER: **seconda prattica** [or **second practice**; prompt on **prattica** or **practice** or **stile moderno**]

[10h] Exemplars of the *seconda prattica* include this composer, who published eight collections of madrigals and other early Baroque songs before her death in 1677. She was adopted into a noble family by Giulio, a famed librettist of the time.

ANSWER: Barbara **Strozzi**

<Classical/Opera, Will Alston>

4. This playwright's experience working as a speechwriter for FDR inspired the play *Roosevelt and Hopkins*, which dramatizes the dealings of the two title men with Stalin during World War II. For 10 points each:

[10m] Name this American playwright who won four Pulitzers in total, including one for *Abe Lincoln in Illinois*.

ANSWER: Robert **Sherwood**

[10e] Sherwood was a member of this group of New York City writers, which included Dorothy Parker and Harpo Marx and met at a namesake hotel in the 1920s.

ANSWER: **Algonquin** Round Table [accept **Algonquin** Hotel]

[10h] Sherwood's play *Idiot's Delight* ends with Harry and Irene singing this song as bombs fall around them. Lady Britomart is offended when Charles Lomax plays this song in *Major Barbara*.

ANSWER: "**Onward, Christian Soldiers**"

<Drama, Mitch McCullar>

5. Though this wine is the most characteristic example of a "petrol" aroma, a localized version of the Wheel of Aroma for white wines omitted "petrol" as some experts consider the aroma a defect. For 10 points each:

[10m] Name this variety of wine. Cultivation of its namesake grapes was first introduced in the U.S. in the Finger Lakes region, which is similar in microclimate to the lower Moselle, where the finest varieties of it are made.

ANSWER: **Riesling**

[10e] The lower reaches of the Moselle can be found in this European country, where *pinot noir* cultivation began in the 15th century on the northern shores of Lake Constance.

ANSWER: **Germany** [or Federal Republic of **Germany** or Bundesrepublik **Deutschland**]

[10h] The world's oldest known unopened bottle of wine, dated to the 4th century CE, was found in this German city and is housed in its Historical Museum of the Palatinate. This city's Prince-Bishop once demanded a tithing of Riesling grapes delivered to the Deidesheim ("DYE-dus-hyme") vineyards.

ANSWER: **Speyer**

<Other Academic, Will Alston>

6. For 10 points each, name these attendees of the first Congress of Black Writers and Artists, held in 1956:

[10e] This attendee and poet of "Black Woman" and the collections *Ethiopiquest* and *Nocturnes* was a leading figure in the Négritude movement. He later became the first post-independence president of Senegal.

ANSWER: Léopold Sédar **Senghor**

[10m] This author's essay *Princes and Powers*, which raised awareness of the conference in the Anglophone world, describes debates over Négritude at the event. This author wrote the essay "Stranger in the Village" about his experience as a Black man traveling in Switzerland, as well as the essay "Many Thousands Gone."

ANSWER: James **Baldwin**

[10h] This expatriate German scholar founded the pioneering Nigerian literary magazine *Black Orpheus* after the conference. This scholar rendered many traditional Yoruba poems into English for the 1963 volume *Modern Poetry*.

ANSWER: Ulli **Beier**

<Misc. Lit, Will Alston>

*Note to moderator: read the answer line to the first bonus part carefully.*

7. When using the scalar Kirchhoff integral to solve this problem, the radiated power has no azimuthal dependence because the azimuthal dependence comes from the polarization of the fields. For 10 points each:

[10h] Name this problem that produces an intensity distribution proportional to the squared modulus of the following: two times a Bessel function of the first kind of " $k a \theta$ " all over " $k a \theta$ ."

ANSWER: Fraunhofer **diffraction** by a **circular aperture** [accept **diffraction** by a **circular disk**; prompt on **diffraction**; prompt on **long wavelength diffraction**; prompt on **Fraunhofer diffraction**; prompt on **diffraction** by a **thin screen**; prompt on **diffraction** by a **perfectly conducting screen**]

[10m] In deriving the scalar Kirchhoff integral, this mathematician's second identity is used to equate a scalar field inside a volume with a surface integral. This English mathematician extended the work of Poisson in his 1828 work *Essay on the Application of Mathematical Analysis to the Theory of Electricity and Magnetism*.

ANSWER: George **Green**

[10e] The Kirchhoff integral is only over the surface of the screen because the scalar field has this dependence on distance. The electric potential of a point charge has this dependence on distance.

ANSWER: **one-over**-distance [or **one-over**-R; or distance to the **negative one**; accept **inversely** related; reject "inverse square"]

<Physics, Jonathen Settle>

8. One book by this thinker examines the case of the courtesan Andriana Savorgnan and argues she was attacked by the Dandolo family because her powers were conceived of as "supernatural" and not "sexual." For 10 points each:

[10h] Name this historian who presented five accounts of various prostitutes being accused of witchcraft in his book *Binding Passions*. Many of his theses were introduced earlier in his book *The Boundaries of Eros*.

ANSWER: Guido **Ruggiero** ("roo-JAIR-oh")

[10m] *Binding Passions* makes continual reference to this other work of microhistory, which examines a heretical view of the World's creation presented by a 16th-century Friulian miller named Menocchio ("meh-NOK-kee-oh").

ANSWER: *The **Cheese and the Worms*** [or *Il **formaggio e i vermi***] (by Carlo Ginzburg.)

[10e] Both *Binding Passions* and *The Cheese and the Worms* are works of microhistory based on the records of this organization in Italy. In another country, this institution was headed by Tomás de Torquemada.

ANSWER: Roman **Inquisition** [or Supreme Sacred Congregation of the Roman and Universal **Inquisition** or Spanish **Inquisition**]

<Historiography, Ike Jose>

9. Outside DC's National Museum of Women in the Arts, you can see a fiberglass sculpture of a bright red one of these figures who is throwing a ball while "on a Dolphin." For 10 points each:

[10h] Give the common name of this series of figures. They include *Black is Different* and *Black Rosy, or My Heart Belongs to Rosy*, both created in response to the Civil Rights demonstrations in the U.S.

ANSWER: **Nanas** (of Niki de Saint Phalle)

[10m] Niki de Saint-Phalle's brightly colored *Nanas* echo the vibrant *Stravinsky Fountain* which she designed with this man, her second husband. This sculptor's *Homage to New York* is a classic piece of self-destructing art.

ANSWER: Jean **Tinguely** ("tahn-guh-LEE")

[10e] A series of Saint-Phalle's early works were created by asking artists such as Jasper Johns and Robert Rauschenberg to perform this action on them. Valerie Solanas did this action to Andy Warhol in 1968.

ANSWER: **shooting** them [accept anything involving firing a **gun** or **getting shot**; prompt on **trying to kill** by asking "via what method?" even though that's not quite right for the Burden piece]

<Painting/Sculpture, Halle Friedman>

10. For 10 points each, name these cities which aren't exactly at the North Pole, but which you might visit to find Santa anyways:

[10m] This US city's suburbs include the town of North Pole, which contains a "Santa Claus House" converted from a trading post. The aurora borealis occurs often in this city, which is home to a flagship state university.

ANSWER: **Fairbanks**, Alaska [accept University of Alaska - **Fairbanks**]

[10e] Pilgrims devoted to Saint Nicholas can go to Bari or this city, as both claim to have stolen some of the saint's bones from Myra during the First Crusade. On the way, pilgrims may stop by this Italian city's St. Mark's Cathedral.

ANSWER: **Venice** [or **Venezia**]

[10h] Thousands of letters from hopeful children are postmarked for this Finnish city every year, as it claims to be Santa's home and even contains a Santa Claus Village staffed by people in elf costumes. This city is also the capital of Finnish Lapland.

ANSWER: **Rovaniemi**

<Geography, Will Alston>

11. The log of the strength of an acid in this definition is linearly proportional to the log of the rate constant in general acid catalysis according to one of its namesake's catalysis equation. For 10 points each:

[10e] Name this acid-base definition in which acids are proton donors and bases are proton acceptors.

ANSWER: **Bronsted**-Lowry acid-base definition

[10m] This quantity is the negative enthalpy change of adding an H-plus ion to a compound in the gas phase. This quantity is smallest for the helium atom.

ANSWER: **proton affinity**

[10h] This other acid-base theory classes acids as oxide-ion acceptors and bases and oxide ion donors. It's mostly used in geochemistry.

ANSWER: **Lux-Flood** theory

<Chemistry, Eric Mukherjee>

12. The legend of Wang Zhaojun, who made geese fall out of the sky by playing the lute, originated from the use of this policy by Emperor Yuan of Han. For 10 points each:

[10m] Identify this policy denoted by the word *heqin* ("huh-cheen"), which was first adopted by the Han emperor Gaozu to appease the Xiōngnú ("shyong-noo"). A description is fine.

ANSWER: **marriage alliances** [or **peace marriages**; accept any answer which indicates **allying** to people via **marriage**, or **marrving** people for a **peace** treaty; prompt on **tribute** or **tributary** system]

[10e] Despite only ruling for 37 years, this Chinese dynasty married off 6 different family members via *heqin*, primarily to build relations with Turkic and Tuyuhun peoples. It was succeeded by the Tang.

ANSWER: **Sui** ("sway") dynasty

[10h] This Tang princess was married off to Songtsen Gampo, the founder of the Tibetan Empire. She is traditionally credited with introducing Chinese agriculture, porcelain, and other innovations to Tibetan culture.

ANSWER: Princess **Wencheng** [or **Wénchéng** Gōngzhǔ or **Mun Chang** Kungchu]

<World History, Will Alston>

13. An icon at Saint Catherine's Monastery depicts one of these objects with 30 sections representing the 30 stages of spiritual life. For 10 points each:

[10m] Name these objects which title an Eastern Orthodox mystical treatise by a monk named John, who lived on Mount Sinai. In Genesis, a man gives the name Bethel to the place he had a vision of one of these objects.

ANSWER: **ladders** [or **climax** or **scala**; accept **Sūllām** accept Saint John of the **Ladder**; accept *The Ladder of Divine Ascent* or **Scala Paradisi**; prompt on Johannes **Climacus** by asking "to what objects does his name refer?"; DO NOT REVEAL THIS ANSWER OTHERWISE BUT accept Jacob's **ladder**]

[10e] The divine ladder motif comes from a passage in Genesis in which this Biblical patriarch dreams of angels descending and ascending a ladder to heaven.

ANSWER: **Jacob** [or **Yaakov** or **Yaqub**; accept **Jacob's** ladder; accept **Israel**]

[10h] This 14th-century Flemish mystic described the soul climbing a ladder to heaven in *Seven Steps of the Ladder of Spiritual Love*. This author of *The Sparking Stone* wrote in Dutch vernacular and was called the "Ecstatic Doctor."

ANSWER: **John** of **Ruusbroec** [or **Jan** van **Ruusbroec**; prompt on **John** or **Jan**]

<Misc Belief, Will Alston>

14. One member of this group is known only by the mononym "Clarinda" and wrote a *Discourse in Praise of Poetry* in which she laments the neglect of the poets of the Americas, such as Diego Dávalos Figueroa. For 10 points each:

[10h] Name this 16th and 17th-century society of writers based out of the New World. Its goal was to show that the literature of the then-burgeoning Americas could surpass that of Europe.

ANSWER: **Academia Antartica** [or **Antarctic Academy**]

[10m] Clarinda's *Discourse* appeared in a two-volume work put out by the Academia Antartica whose centerpiece was a Spanish translation of this group of Latin epistolary poems, which are addressed from Ariadne, Briseis, and other mythological women to men who abandoned them.

ANSWER: **Heroides** (by Ovid)

[10e] Clarinda and her cohorts worked out of this city in the New World. In a 1977 novel set in this city, the radio station Panamericana purchases the scripts of novelas written by a delirious Pedro Camacho.

ANSWER: **Lima**

<Poetry, Will Alston>

15. This artist created a series of drawings of dystopian landscapes titled *Embarkation* which were loosely inspired by Watteau's *Embarkation for Cythera*. For 10 points each:

[10h] Name this South African artist who is best known for creating films such as *More Sweetly Play the Dance* and *Felix in Exile* by erasing and adding to the same charcoal drawing.

ANSWER: William **Kentridge**

[10e] Kentridge's films include one titled "Journey to" [this place]. That film was directly inspired by a classic 1902 adventure film by Georges Méliès ("meh-lee-AY") in which the characters take a "Trip to" this place.

ANSWER: the **Moon** [accept *Journey to the Moon*, or *Trip to the Moon*, or *Le Voyage dans la Lune*]

[10m] Kentridge used eight charcoal drawings to create a film in which this character "Tells the Truth," inspired by South Africa's Truth and Reconciliation. This literary character appears as a giant top in a painting by Max Ernst.

ANSWER: **Ubu** [accept **Ubu** Imperator, or Père **Ubu**, or **Ubu** Roi]

<Other Arts: Visual, Halle Friedman>

16. Henry Beresford, whose drunken antics are the origin of the phrase “paint the town red,” was a popular suspect for the identity of this figure. For 10 points each:

[10h] Name this figure who was first recorded terrorizing the London area in the late 1830s. Though in some accounts this figure was bear-like or capable of breathing fire, his most common name derives from his method of scaling walls.

ANSWER: **Spring-heeled Jack** [prompt on **Jack**]

[10e] The legend of Spring-heeled Jack persisted for several decades due in part to these sensational novels written to take advantage of the growing literacy of the working class during the 19th century.

ANSWER: **penny dreadfuls**

[10m] Another legendary Jack of 19th century London folklore, Jack the Ripper, is commonly ascribed the murder of several prostitutes in this district of London.

ANSWER: **Whitechapel** [accept **Whitechapel Murders**]

<European History, Alex Fregeau>

17. For 10 points each, answer the following about Plains Indian Sign Language:

[10e] Plains Indian Sign Language was once one of these languages used as a universal manner of communication within a region. This two-word Latin term originally named an Italian pidgin used in the Mediterranean.

ANSWER: **lingua franca** [prompt on **trade language** or **link language** or **bridge language**]

[10m] Plains Indian Sign Language predominantly uses this word order, the most common among the world’s languages. This word order is standard in Hindi, Classical Greek, and Turkish.

ANSWER: **subject-object-verb** [or **SOV**]

[10h] In Plains Indian Sign Language, a raised open hand serves both as a means of forming questions as well serving this role. In English, this role can be filled by words and phrases like “oh”, “you know”, and “I mean”, which introduce speech and separate ideas.

ANSWER: **discourse markers** [accept **discourse marking**; prompt on **markers** or **marking**]

<Social Science: Linguistics, Alex Fregeau>

18. In a book titled for this author’s “Ghosts,” Luke Gibbons argues the spirits in his works were a reflection of his Irishness, rather than his practice of Spiritualism and Theosophy. For 10 points each:

[10e] Name this author who wrote a story which ends with Gabriel Conroy contemplating the spirits of Michael Furey and others as snow falls upon a graveyard.

ANSWER: James **Joyce** (The story is “The Dead.”)

[10h] In this chapter of Joyce’s *Ulysses*, Stephen and Leopold journey to Nighttown, Dublin’s red light district, where they hallucinate and see the ghosts of Stephen’s mother and Leopold’s father.

ANSWER: “**Circe**” [or Chapter **15**]

[10m] In “Circe,” this author’s beardless head appears in a mirror and angrily says “Weda seca whokilla farst” to Stephen and Leopold. Elsewhere in *Ulysses*, Stephen Daedalus discusses this author’s ghost is the grandfather to one of his characters.

ANSWER: William **Shakespeare** [prompt on **Hamlet’s grandfather**, since Stephen claims to prove that Shakespeare’s ghost is Hamlet’s grandfather]

<Long Fiction, Will Alston>

19. In the essay "The Disenfranchisement of Art," Arthur Danto described the history of art in terms of art's conception of its own history as part of an extended allusion to this method. For 10 points each:

[10e] Name this process most commonly applied to the progress of history, as in an often misattributed theory of this method that lists the steps of thesis, antithesis, and synthesis.

ANSWER: **dialectical** method [or **dialectics**]

[10m] Danto's essay "The Artworld" puts forth this sort of theory of art, in which something is an artwork if it is perceived as such by a relevant group of people. George Dickie is a major proponent of this theory of art.

ANSWER: **institutional** theory of art [accept word forms such as **institutionalist**]

[10h] Contra Danto and Dickie's institutional theory, this Maryland philosopher claimed that works of art become art by virtue of their relationship to previous pieces of art in works such as "Defining Art Historically" and *Music, Art, and Metaphysics*.

ANSWER: Jerrold **Levinson**

<Philosophy, Halle Friedman>

20. This protein contains a P·H·D domain on either side of a proline-rich domain, and mutations in it cause autoimmune poly·endocrin·opathy type 1. For 10 points each:

[10m] Name this protein expressed in the thymus. This transcription factor is responsible for the expression of ectopic self-antigens to induce tolerance.

ANSWER: **AIRE** [or **autoimmune regulator**]

[10e] AIRE ("air") is key to deleting self-reactive clones of these cells, which are initially C·D·4 and C·D·8 positive before picking one or the other as they develop in the thymus.

ANSWER: **T** cell

[10h] These cells in the thymus are responsible for expressing self-antigens, so that developing T cells can become tolerized to them. They can also transfer antigens to thymic dendritic cells.

ANSWER: **mTEC** [or **medullary thymic epithelial cells**]

<Biology, Eric Mukherjee>