

## Chicago Open 2023

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## Tossups

1. A self-taught artist born during this dynasty made a mid-career switch to a freehand style that he used for many celebrated ink paintings of shrimp. In a painting from this dynasty, two houses nestled into trees to the left degenerate into so-called *10,000 Ugly Inkblots* on the right. Painters like Qí Báishí learned composition from this dynasty's colorful *Manual of the Mustard Seed Garden*. Notable flying gallop poses appear in a painting from this dynasty of a hundred horses in a field. The Four (\*) Wángs were among the Six Masters of this dynasty whose orthodox style contrasted with "Individualists" like Shítāo. Among the common painterly subjects in this dynasty was a group that includes Miào yù and Lín Dài yù. For 10 points, Giuseppe Castiglione worked as a court painter during what dynasty, whose later artists often illustrated the Twelve Beauties of Jinling from *Dream of the Red Chamber*?

ANSWER: Qīng Dynasty [or Qīng cháo or Great Qīng or Dà Qīng]

<Henry Atkins, Visual Fine Arts>

2. A priest in this novel wonders if Jesus had an anus while contemplating how no one ever defecates in novels. Early in this novel, a woman's disappointment is described as "almost palpable, like a secret fart" after her niece barely reacts to news of her mother's death at school. A character in this novel visits a medium named Sylvia to try to figure out with whom his dead wife was having an affair. A funeral in this novel takes place on the day of the (\*) 1997 Rugby World Cup. This novel ends in 2018 after the death of an alcoholic who is unable to forget shooting a protester while serving in the army as a teenager. In this novel, Amor leaves home to work as a nurse in an HIV ward in Durban and fulfills a pledge to bequeath a house to a Black servant named Salome. For 10 points, name this Booker-winning 2021 novel by Damon Galgut.

ANSWER: *The Promise*

<Mike Bentley, World Literature>

3. This thinker argued an "erroneous conscience" can be excused by ignorance of circumstance, imagining a man who accidentally sleeps with a woman who is not his wife. This thinker argued that synderesis provides the major premise of all practical syllogisms. In a 1998 book about this thinker, John Finnis argues that he derived all norms from the self-evident "first precept" that "good is to be done and pursued, and evil is to be avoided." Adrian Vermeule's common-good constitutionalism takes its name from this thinker's (\*) definition of law as "an ordinance of reason for the common good." In discussing self-defense, this thinker, who referred to Ulpian as "the Jurist," argued that it's sometimes permissible to cause harm as an unintended yet foreseeable side-effect of an otherwise good action. For 10 points, what natural law theorist formulated the doctrine of double effect in his *Summa Theologica*?

ANSWER: Thomas Aquinas [or Saint Thomas Aquinas or Tommaso d'Aquino]

<Caleb Kendrick, Philosophy>

4. A “fatte calfe” was symbolically gifted by the descendants of a community that spoke this language to the descendants of John Pell in 1713. As well as causing a disease outbreak, a ship called the “Pelican” brought some of the first women who spoke this language to what is now the US. A migration of speakers of this language was followed by that of the “New England Planters” to the Annapolis Valley. A (\*) 1768 rebellion, sometimes named for people who primarily spoke this language, forced governor Antonio de Ulloa (“oo-YOH-ah”) out of power. Speakers of German and this language settled along the “German Coast” and founded the cities of Biloxi (“bih-LUCK-see”) and Mobile. For 10 points, name this language that became much more prominent in what is now the US after the Expulsion of the Acadians.

ANSWER: **French** [or *français* or *langue française*] (John Pell sold the land that became New Rochelle, New York to a group of Huguenots.)

<Alex Fregeau, US History>

5. Martin Kapun’s work on these phenomena contributed to 2017 findings of seasonal latitudinal clines in their rates of occurrence and of evidence that the “3RP” one of these phenomena is a response to climate change. Kirkpatrick and Barton 2006 suggests that these phenomena facilitate advantageous association of alleles. The transposon *Galileo* was used to show that these phenomena can result from an “ectopic” process, during which they form namesake (\*) loops when heterozygous. After discovering these phenomena in polytene chromosomes in *D. melanogaster* larvae, Alfred Sturtevant showed that it reduces recombination rate in heterozygotes. Depending on whether they include the centromere, these mutations can be paracentric or pericentric. For 10 points, name this type of chromosomal rearrangement in which a segment is flipped around.

ANSWER: chromosomal **inversions** [prompt on chromosomal rearrangement]

<Munir Siddiqui, Biology>

6. A group founded by this man planned to occupy airport bathrooms in a so-called “shit-in.” A book by this thinker originally included a dedication to Lucifer, the first man who “rebelled against the establishment.” The newspaper magnate Marshall Field III funded an organization founded by this thinker and led by his student Edward T. Chambers, the Industrial Areas Foundation. This founder of The Woodlawn Organization wrote a book which advises (\*) “make the enemy live up to its own book of rules” and “power is not just what you have, but what the enemy thinks you have.” Hillary Clinton’s senior thesis was about this thinker who attempted to galvanize groups of “Have-Nots” on a grassroots level as exemplified by his work in Chicago’s Back of the Yards neighborhood. For 10 points, what New Left author of *Rules for Radicals* pioneered community organizing?

ANSWER: Saul **Alinsky** [or Saul David **Alinsky**]

<Chris Ray, Modern World>

7. In a work in this genre, the author describes smoking a “Thai stick” and vomiting onto what appears to be his own corpse on the beach, which his fiancée sees as a sandcastle. In another work in this genre, a character draws a black dot with squiggly lines before going through a hand mirror exercise during the title workshop. A work in this genre describes the author’s search for the “perfect moment” while playing a bit part in *The Killing Fields*. (\*) *Monster in a Box* and *Swimming to Cambodia* are works of this type by Spalding Gray. A list of twenty specific moans appears in a sequence of these works, which is prefaced by three women listing euphemisms like “Toadie, Dee dee, Nishi, Dignity, Monkey Box” and “Gladys Seagelman.” For 10 points, a feminist play by V—formerly known as Eve Ensler—consists of what sort of performances on the topic of the vagina?

ANSWER: **monologues** [or **solo** performance; accept **monodrama**; accept **one-man** shows or **one-woman** shows or **one-person** shows; accept *The Vagina Monologues*]

<Henry Atkins, American Literature>

8. A 2010 paper by Buie et al. noted a latitudinal trend in this body's albedo which is brightest near the equator. The lack of degraded craters on this body is attributed to massive cryoflows from its Vulcanian epoch which succeeded a period of crustal block fragmentation in the Ozian epoch. A five-year transit period between 1985 and 1990 confirmed the existence of this body, whose low gravity and solar-wind exposure prevents it from sustainably accumulating its own atmosphere using transferred N<sub>2</sub> from its protected neighbor. An elongated bulge on photographic plates analyzed by James (\*) Christy led to this body's discovery. This body's dark-red north-pole is called Mordor. This is the smaller of two bodies within an 8-to-1 mass ratio binary planet system, the second-largest after Orcus and Vainth in the Solar System. For 10 points, name this second-largest body visited by New Horizon, the largest satellite of Pluto.

ANSWER: Charon [accept (134340) Pluto I until "Pluto" is read; reject "Pluto"]

<Kevin Thomas, Astronomy>

9. A major strand of research on this condition emerged from PET scan work at Brookhaven National Laboratory, which led to the popularization of the iRISA model by Nora Volkow. Katie Witkiewitz and Alan Marlatt modeled the recurrence of this condition using nonlinear dynamical systems and chaos theory. A technique originally developed to treat this condition is based around separate "stages" of Engagement, Focusing, Evoking, and Planning, and was developed by Stephen Rollnick and William (\*) Miller. Motivational interviewing was originally developed to treat the most common example of this condition. Overexpression of the transcription factors CREB and Delta-FosB is closely studied for its association with this behavioral condition. The role of environmental factors in this behavior was studied in Bruce Alexander's "Rat Park" experiments. For 10 points, name this general type of behavior, famously called "rational" by Kevin Murphy and Gary Becker.

ANSWER: addiction [accept any answer that indicates a substance abuse disorder; accept specific examples such as alcoholism or opiate addiction; prompt on drug use or equivalents; prompt on relapse or equivalents by asking "relapse of what?"]

<Chris Ray, Social Science>

10. A study by Randall Law showed that one culture's primary trade networks for this material flowed from north to south and were supplied by sites like Sherwan. Horace Beck called one culture a "[this material] civilization" for their extensive use of it, such as in microbeads less than 1 mm in diameter. Ernest Mackay was the first to describe a unique faience made with this material found at sites like Nausharo and Mehrgarh. An object made of this material was given its modern name by (\*) Mortimer Wheeler and has been used to support the hypothesis that one culture was a theocracy. The "Priest-King" statue was made of this material, as were most Indus Valley seals. A collection of statues made of this material are believed to depict either Bateleur and African Fishing eagles. For 10 points, name this material used to carve the bird statues of Great Zimbabwe.

ANSWER: soapstone [or steatite or soaprock; prompt on talc]

<Alex Fregeau, Other History>

11. This phrase is stated in retrograde at the end of an "augmentation" variation of a piece written for its composer's entry to Mizler's Music Society. This phrase can be written as a "cross" with intersecting treble, tenor, alto, and treble clef staves and a single note. A flute and oboe d'amore harmonize the chorus with this phrase to open a Kyrie ("KEE-ree-ay") first written for a *Missa brevis* by its composer. For his 2021 recording of a piece partly based on this phrase, Daniil Trifonov (\*) extended that piece beyond its 239th measure with an ending that he composed. This phrase appears in two soprano voices near the end of a piece that its composer was challenged to write in Potsdam and which is based on a *Thema Regium*. A treatise's endnote claims that its composer died while using these notes as the third subject of an unfinished fourteenth contrapunctus. For 10 points, what set of notes names the composer of the *Art of the Fugue*?

ANSWER: BACH motif [accept answers that spell the notes B-flat-A-C-B-natural or B-A-C-H in order] (The Kyrie is from Bach's Mass in B minor.)

<Jacob Egol, Classical Music and Opera>

12. An experimental archaeology project is constructing one of these places using pre-modern tools outside Meßkirch (“MESS-keersh”), Germany. Taxes on these places were delineated in the namesake *Notitia de servitio*. A figure best-known for creating these places was exiled from Burgundy for insulting Theuderic II. One of these places in Ratisbon was run for centuries by people from the British Isles. A man named Gozbert is the dedicatee of a 9th-century (\*) idealized depiction of these places named for one of them in Switzerland. Bernward of Hildesheim (“HIL-dez-haim”) fought with Sophia I over the leadership of a wealthy one of these institutions in Gandersheim, where the author Hrotsvitha (“h’rohts-VEE-tah”) had earlier lived. For 10 points, name these religious institutions whose residents were often governed by the Rule of St. Benedict.

ANSWER: monasteries [accept convent, nunnery, abbey, canonry, or priory; prompt on churches]

<Alex Fregeau, European History>

13. “Affine” metrics for this task penalize creating errors in its output more heavily than extending errors. Two dynamic programming algorithms for this task maintain a traceback matrix containing directions to follow in constructing the final result in addition to the main DP matrix. Of those two algorithms, the Smith-Waterman algorithm is more flexible since it can work locally instead of globally, unlike the Smith-Waterman algorithm. (\*) BLOSUM is a metric commonly used to score this task. A method for this task named after the FASTA format has largely been superseded by an algorithm that relies on the existence of HSPs, or High-scoring Segment Pairs. That algorithm for this task is BLAST. Matching motifs can help solve this task. For 10 points, name this bioinformatic task of comparing and matching biological sequences.

ANSWER: sequence alignment

<Alistair Gray, Other Science - Computer Science>

14. A king asks if this character is “muzzled yet” in a lost Euripides play which sees this character query if another figure had “looked handsome in his robe,” or if it was his hair’s red tint. King Cleomenes consolidated power after a Spartan ephor slept at this figure’s shrine and dreamt about the removal of four chairs. An oracle sanctuary in Thalame equated this figure with Ino and the moon-goddess Selene. Depending on the account, Aphrodite cursed this figure either because her father had informed Hephaestus about her affair, or because of a lack of worship. (\*) Prokris was given a hound and javelin for bypassing this figure’s curse using a goat’s bladder. This sister of Circe and Aeëtes cursed her husband to ejaculate snakes and scorpions. This queen’s son, Asterius, was fed young Athenians. For 10 points, Daedalus crafted a cow exoskeleton for what wife of Minos, a queen of Crete who birthed the Minotaur?

ANSWER: Pasiphaë (“puh-SIH-fay-ee”) (The lost play is *The Cretans*.)

<Kevin Thomas, Beliefs>

15. An essay by this author claims, “A top-hat can well hold the Sixtine. A cheap cap could hide the image of Kephren,” before sarcastically observing that “elephants are VERY BIG.” A play by this author written entirely in novelistic prose depicts a conversation between Argol and Hanp. In a two-part manifesto, this author gives a list of people and objects like Charlotte Corday and castor oil to “bless.” Another author’s poem “Et Faim Saillir Le Loup Des Boys” (“ay fah sah-YEER luh loo day BWAH”), which declares belief in this author, was collected with Eliot’s “Preludes” in a (\*) “War Number” edited by this author. This author of *Enemy of the Stars* edited a 1914 publication that included Ford Madox Ford’s “The Saddest Story” as well as manifestos by Gaudier-Brzeska and Ezra Pound, the latter of whom joined a movement founded by this person after leaving Imagism. For 10 points, name this editor of *BLAST* and founder of Vorticism.

ANSWER: Wyndham Lewis [or Percy Wyndham Lewis]

<Arya Karthik, British Literature>

16. **The Charles Hosmer Morse Museum houses the most comprehensive collection of this artist's works. Benjamin Harrison's widow Mary Dimmick commissioned a work by this artist that depicts Archangel Michael in chainmail. Works etched with this artist's initials were usually made by a team of assistants who had learned under Arthur Nash. Edward Colonna created silver-gilt mounts for works attributed to this artist. This artist's namesake (\*) "Girls" were employed under the supervision of Clara Driscoll. Knockoffs of this artist's signature products were popularized by restaurants such as T. G. I. Fridays. This artist gained international recognition after his company's products were displayed at Siegfried Bing's Art Nouveau House. This artist's signature Wisteria Tree was often featured on products made of his trademarked "favrite" material. For 10 points, name this artist whose company made eponymous glass lamps.**

ANSWER: Louis **Tiffany** [or Louis Comfort **Tiffany**]

<Victor Pavao, Other Fine Arts>

17. **Varāha is depicted lifting up Bhūdevi within his namesake "Cave Temple" in this state. This state is home to the Shore Temple, the last of its Seven Pagodas. A temple in this state contains 22 sacred *tīrthas* symbolizing Rāma's 22 arrows and is renowned for its "infinite corridors." A festival in this state features a coronation ceremony for Pārvaṭī's "fish-eyed" incarnation who rules for the next four months. A religious panel painting style characterized by intricate gold foil originated in a city in this state whose namesake (\*) "Quartet" of brother musicians invented its classical dance. This state is the origin of *gōpuram* ("GO-poo-rum") entrance towers, the tallest of which is located a temple dedicated to a Thenkalai ("TEN-kuh-lay") form of Vishnu named Raṅganātha. Bronzes from this state depict a form of Shiva encircled by a flaming ring while dancing the *tāṇḍavam*. For 10 points, Bharatanatyam ("buh-ruh-tuh-NOT-yum") originated in what South Indian state known for its Chōla-era temples?**

ANSWER: **Tamil Nāḍu** [prompt on **TN**] (The fish-eyed incarnation is Mīnākshī, who is celebrated during the Chithirai festival. the city is Thaṅjāvur.)

<Ashish Subramanian, Beliefs>

18. **An oxyacid of this element oxidizes chloride ions to elemental chlorine. An allotrope of this element consists of enormous rings each containing up to a thousand atoms. The aforementioned oxyacid of this element is the only known single, non-mixture, acid that dissolves gold. A reagent that is commonly used for the addition of this element consists of two phenyl groups and four atoms of this element bonded to two phosphorus atoms and is named for (\*) Woollins. This element's dioxide converts a methylene group adjacent to a ketone into another ketone in the Riley oxidation. An atom of this element at the active site of an enzyme is oxidized to enable the formation of a disulfide bond between two molecules of glutathione; that enzyme is glutathione peroxidase. In a modification caused by the opal stop codon UGA, this element replaces its lighter analogue in cysteine. For 10 points, name this chalcogen that is the heavier analogue of sulfur.**

ANSWER: **selenium** [or **Se**]

<Gerhardt Hinkle, Chemistry>

19. **A travelogue this author wrote while on Norderney ends by quoting satirical poems by Karl Immermann like "The Poetic Literator" and "Orbis Pictus" in its attack on German literature. A chapter from an early book of "Ideen" ("ee-DAY-en") by this author consists of the phrase "the German censors," some redactions, and the word "idiots." The speaker of a long poem by this author relives Hermann's victory at the Battle of Teutoburg Forest and imagines explaining politics to a rewoken (\*) Frederick Barbarossa. That poem centers on a journey this author took from Paris to Hamburg. An account of a walking-tour through the Harz ("hearts") mountains opens this author's *Travel Pictures*. In a 27-canto mock-epic by this poet, the witch Uraka and her son Laskaro pursue an escaped dancing bear through the Pyrenees. For 10 points, name this German romantic poet of *Germany: A Winter's Tale* and "Atta Troll."**

ANSWER: Heinrich **Heine** [or Christian Johann Heinrich **Heine**]

<Caleb Kendrick, European Literature>

20. **Kaizaburō Hino** is one of the historians who supports the existence of a “little” rump state of this kingdom that survived its downfall. This kingdom made the city of **Ansi** part of the [emphasize] *first* line of fortifications known as a “**Thousand Ri Wall**.” A document from this kingdom claims that it was invaded by “**Wa**” in its much-debated “*sinmyo* passage.” Some of the best-preserved art of this kingdom survives in the tomb of **Dōng Shòu** at a complex at (\*) **Anak**. A commander from this kingdom released a dammed river to defeat a much larger force at the **Battle of Salsu**. This kingdom was made into the Protectorate-General to Pacify the East after being defeated by the **Táng** in 668 CE. For 10 points, name this state that comprised the Korean Three Kingdoms period along with **Silla** (“shee-lah”) and **Baekje** (“beck-jay”).

ANSWER: **Goguryeo** [or **Koguryō** or **Gāojūli**; prompt on **Goryeo** or **Koryō**]

<Alex Fregeau, World History>

## Bonuses

1. A painting by Vincente Mostre depicts these people being forced onto boats at the port of Dénia. For 10 points each:  
[e] Name these people, converts from Islam or the descendants of converts, who were expelled from Spain following two revolts in the late 16th century.

ANSWER: **Moriscos** [prompt on **Moors**, **Muslims**, or crypto-**Muslims**]

[h] The expulsion of the Moriscos was promoted by this bishop and viceroy, whose initial proposal included enslaving and forcibly converting Morisco children.

ANSWER: Juan de **Ribera**

[m] This region was the most heavily impacted by the expulsion of the Moriscos, who made up about 30 percent of its population. El Cid ruled this region in the last five years of his life after taking its capital from the Dhulnunid.

ANSWER: **Valencia** [accept Comunitat **Valenciana** or Comunidad **Valenciana**]

<Alex Fregeau, European History>

2. Answer the following about German photographer Wolfgang Tillmans, for 10 points each:

[e] In 2000, Stuckists dressed as clowns protested at the Tate Britain when Tillmans became the first non-British artist and first photographer to win this prize, which is itself named for a British artist.

ANSWER: **Turner** Prize [or J. M. W. **Turner** Prize or Joseph Mallord William **Turner** Prize]

[m] Tillmans' breakthrough image depicts nude couple Alex and Lutz sitting on this sort of object. In a Judy Dater image, one of these objects separates an old woman with a camera around her neck and a nude Twinka Thiebaud.

ANSWER: **trees** [accept tree **stump** or tree **branches**; accept *Lutz and Alex sitting in the trees*]

[h] This 2002 Tillmans close-up of two men making out at a London nightclub went viral in 2016 in the aftermath of the Pulse nightclub shooting in Orlando.

ANSWER: *The **Cock** (Kiss)*

<Ani Perumalla, Other Fine Arts>

3. Arthur Ashkin won the 1986 Nobel Prize in Physics for work on these devices that involved exploiting their radiation pressure. For 10 points each:

[e] Name these devices used to trap objects in optical tweezing.

ANSWER: **lasers**

[m] In optical tweezing, particles are attracted to the center of a laser beam by a "gradient force" proportional to the gradient of this quantity. Gaussian beams are named for the Gaussian profile of this quantity.

ANSWER: **intensity** [prompt on **flux**, **irradiance**, or *I*]

[h] This word and "rips" refer to sudden extension changes of molecules tethered in optical tweezers. This is the **[emphasize]** *root word* of a conformational change to DNA commonly imposed by optical tweezers, like with Bockelmann et al.'s setup with partially overlapping equal-intensity spots.

ANSWER: **zips** [or **unzipping**]

<David Bass, Physics>

4. Novels like *Three A-Cup Women* by popular romance author and blogger Zhāng Xiǎo Xián ("chahng sh'yao sh'yen"), also known as Amy Cheung, focus on issues faced by people targeted by this term. For 10 points each:

[h] The phrase "3S", meaning "single, 70s, and stuck," is sometimes used in place of what derogatory term for single Chinese women over twenty-seven? Either the Chinese term or its common English translation is acceptable.

ANSWER: **shèngnǚ** ("shung-noo") [or **leftover** women; accept **surplus** women]

[m] In 2016, a piece by this official Chinese state-owned news agency criticized newly-elected Taiwanese president Tsai Ing-wen for lacking the "constraints of family" as a 60-year-old single woman.

ANSWER: **Xīnhuá** ("sheen-h'wah") News Agency [or **Xīnhuá** tōngxùnshè ("tong-shoon-shuh"); or **New China** News Agency]

[e] A viral ad by SK-II, a brand in this industry, raised awareness of the plight of single women in China. Many Indian actresses were criticized for promoting colorism via ads for a brand in this industry called Fair and Lovely.

ANSWER: **skincare** [accept **cosmetics**, **beauty** products, or **makeup**]

<Ani Perumalla, Modern World>

5. A poem by this author consists of the two lines “But Islands of the Blessèd, bless you, son, / I never came upon a blessèd one.” For 10 points each:

[e] Name this poet who also wrote much longer dramatic monologues and dialogues such as “A Servant to Servants,” “The Black Cottage,” and “The Death of the Hired Man.”

ANSWER: Robert **Frost**

[h] In a Frost monologue, two towns fight not to keep one of these people who recalls making her husband gather mountain snowberries. The narrator of a Frost dialogue spends the night at the farm of one of these people in Coös (“COH-oss”).

ANSWER: **witches** [accept “The Pauper-**Witch** of Grafton”; accept “The **Witch** of Coös”]

[m] Frost’s most iconic dramatic poems appear in *North of Boston*, as does this poem. This poem’s speaker thinks that a woodchuck could distinguish between “Long sleep, as I describe its coming on, / Or just some human sleep.”

ANSWER: “**After Apple-Picking**”

<Henry Atkins, American Literature>

6. An etching from Glenn Ligon’s *Prologue Series* thoroughly smudges out a passage from this novel’s prologue except for the clear-cut words “I’m” and “not.” For 10 points each:

[e] Name this 1952 novel that Gordon Parks promoted with a photobook for *Life*, which includes a photograph depicting a Black man peering out from under a manhole cover.

ANSWER: **Invisible Man** [reject “*The Invisible Man*”]

[h] This artist cut out the outline of a walking man from a bronze sheet for her Manhattan monument to Ralph Ellison. This Black artist created the linoleum cut *Sharecropper* and sculptures like *Mother and Child* after moving to Mexico in her forties.

ANSWER: Elizabeth **Catlett** [or Alice Elizabeth **Catlett** or Elizabeth Catlett **Mora**]

[m] A Cheshire cat-like toothy smile and the whites of the eyes are the only facial features visible in both this Black artist’s 1980s paintings “Invisible Man” and “Self-Portrait of the Artist as a Shadow of His Former Self.”

ANSWER: Kerry James **Marshall**

<Ani Perumalla, Visual Fine Arts>

7. Suboxone consists of this medication packaged alongside a compound that exhibits a “ceiling effect.” For 10 points each:

[e] Identify this drug which may be given intravenously, intramuscularly or intranasally to rapidly reverse suspected opioid overdoses.

ANSWER: **naloxone** [or **Narcan**]

[m] The other component of Suboxone, buprenorphine, possesses this activity profile, allowing it to displace opioids and prevent withdrawal symptoms. R. P. Stephenson defined drugs with this property as high affinity but low efficacy.

ANSWER: **partial agonism** [or **partial agonists**; accept **partial** D2 **agonism** or **partial**  $\mu$ -opioid receptor **agonism**; reject “agonism”]

[h] Uniquely among the atypical antipsychotics, this drug acts as a partial agonist at D2 receptors. Patients with schizophrenia who struggle with taking daily medications may benefit from Aristada, its long-acting injectable form.

ANSWER: **aripiprazole** [or **Abilify**; accept **aripiprazole** lauroxil]

<Itamar Naveh-Benjamin, Biology>



8. The memorial *Kindred Spirits* in the town of Middleton commemorates the friendship between a Native American nation and this country. For 10 points each.

[e] Name this modern country that received donations for famine relief from several Native American peoples in the mid-19th century. Éamon de Valera sought Native American assistance for this country's fight for independence.

ANSWER: **Ireland** [or **Éire**, or Republic of **Ireland**, Poblacht na hÉireann]

[m] This Native American nation is the specific dedicatee of *Kindred Spirits*. Greenwood Leflore and Musholatabbee were among the chiefs of this nation who signed the Treaty of Dancing Rabbit Creek before participating in the Trail of Tears.

ANSWER: **Choctaw** [or **Chahta**] (John Coffee, who represented the US in the Treaty of Dancing Rabbit Creek, was ironically of Irish descent.)

[h] Éamon de Valera visited this nation and was made an honorary chief of their Lac Courte Oreilles Band. Hundreds of members of this nation died near Big Sandy Lake while resisting forced relocation by order of Zachary Taylor.

ANSWER: **Ojibwe** [or **Chippewa**; prompt on **Anishinaabe**]

<Ani Perumalla, Other History>

9. Individuals who seek healing for their clubbed feet may pray for the intercession of a saint from this country who suffered from burnt feet for most of her life. For 10 points each:

[m] Name this home country of St. Alphonsa, the site of the Coonan Cross Oath that rebuked attempts to impose the Latin Rite. The incorruptible body of a saint located in this country's Basilica of the Bom Jesus had its toe bitten off in 1554.

ANSWER: **India** [or **Bhārat**, Republic of **India**, or **Bhārat** Gaṇarājya]

[e] This saint's incorruptible remains are revealed to the public in Goa every 10 years. This co-founder of the Jesuit order is known for his missionary work in China and Japan among other places.

ANSWER: St. Francis **Xavier** [or Francisco de **Jasso y Azpilicueta**]

[h] Another saint venerated in India is this Polish priest who attempted to found another

Niepokalanów ("n'yeh-paw-KAH-lah-noof") monastery in Kerala. This man's martyrdom occurred at Auschwitz when he offered himself up for execution in place of another inmate.

ANSWER: Maximilian Maria **Kolbe** [or Raymund **Kolbe**]

<Kevin Thomas, Beliefs>

10. In a Charlotte Mew poem, a man in one of these places laments, "There is something horrible about a flower... there is something terrible about a child." For 10 points each:

[m] Name these places. A description of a "weary bird" who "claps his well-fledged wings, and bears away" ends a Robert Blair poem set in one of these places, which inspired poets like Thomas Parnell.

ANSWER: **cemeteries** [or **graveyards**; accept "In Nunhead **Cemetery**"; accept "The **Grave**"; accept **graveyard** poets]

[h] Mew included "In Nunhead Cemetery" in this collection. This collection's title poem centers on a woman "shy as a leveret, swift as he," and ends with the lament, "the brown, / The brown of her—her eyes, her hair, her hair!"

ANSWER: *The **Farmer's Bride***

[e] One of the staunchest supporters of *The Farmer's Bride* was this poet, who wrote of hearing "a full-hearted evensong" while "tangled bine-stems scored the sky / Like strings of broken lyres" in "The Darkling Thrush."

ANSWER: Thomas **Hardy**

<Arya Karthik, British Literature>

11. Answer some questions about empirical determination of protein structure, for 10 points each.

[h] This hydrophobic compound and its dimer are dyes that are frequently used to monitor the kinetics of protein folding. It consists of an amine bound to a type of acid for which it is partially named.

ANSWER: **ANS** [or **8-anilinonaphthalene-1-sulfonic acid**]

[e] In non-polar environments, ANS bound to a protein undergoes this kind of emission process in which a molecule absorbs radiation and then emits at higher wavelengths.

ANSWER: **fluorescence**

[m] This spectroscopic technique is frequently used for detecting secondary structures and relies on differential responses to a certain type of polarized light.

ANSWER: **circular dichroism** spectroscopy [or **CD** spectroscopy]

<Jerry Vinokurov, Chemistry>

12. Attempts to capture this author's rhyme of "mundo" and "Raimundo" in English include "World so large, world so wide, / if my name were Clyde, / it would be a rhyme but not an answer." For 10 points each:

[h] Name this author of "Seven-Sided Poem." This author wrote "The party's over, / the lights are off, / the / crowd's gone, / the night's gone cold, / what now?" in a poem addressed to a bored apartment dweller named José ("zhoo-ZEH").

ANSWER: Carlos **Drummond** de Andrade ("jee on-DRAH-jee") [prompt on de **Andrade**]

[e] Besides being arguably the most popular poet in Brazil, Drummond also wrote a large output of *crônica*, which are short, informal prose pieces that appear in this medium. Examples of this medium include *Granta*.

ANSWER: **magazines** [or **newspapers**; or **journals**; or **periodicals**; accept literary **journals**]

[m] Richard Zenith, who translated Drummond in *Multitudinous Heart*, is better known for his recent biography of this author. Scholars are still working to edit a 25 thousand page manuscript left by this author in a wooden trunk.

ANSWER: Fernando **Pessoa** [or Fernando António Nogueira **Pessoa**]

<Henry Atkins, World Literature>

13. A story about a prince defying the power of the Maharaja of Zabaj may reflect a period of this empire's influence in mainland Southeast Asia. For 10 points each:

[m] Name this empire known to its contemporaries in China as *Sānfóqí* ("sahn-fo-chee"). This empire fell after its capital was taken by Rājendra Chōla in 1025.

ANSWER: **Srivijaya** Empire [or **Sriwijaya** Empire]

[e] The prince in the story is from this kingdom, which Jayavarman II removed from the influence of Srivijaya by moving his capital north of the Tonle Sap.

ANSWER: **Khmer** Empire

[h] Srivijaya was a hub of trade between the Arab world and East Asia, as shown by a shipwreck named for this island. That shipwreck off this island was an Arab *dhow* ("dao") holding a large quantity of Chinese porcelain.

ANSWER: **Belitung** [or **Beliton** or **Billiton**; accept **Belitung** shipwreck]

<Alex Fregeau, World History>

14. This paper argues that, while Martian scientists could understand thunder and rainbows, they could not understand the human concepts of thunder and rainbows. For 10 points each:

[e] Name this 1974 paper by Thomas Nagel that argues that, despite being able to imagine what it might be like to be nocturnal and echolocate, we cannot know the answer to the title question.

ANSWER: "**What Is It Like to Be a Bat?**"

[h] L. A. Paul's book *Transformative Experience* opens by arguing that, since you cannot know what it's like, it's impossible to make an informed decision about undergoing this transformation that she likens to becoming a parent.

ANSWER: **turning into a vampire** [accept clear-knowledge equivalents mentioning **vampires**]

[m] Together with Paul, this UChicago philosopher won the 2020 Lebowitz Prize for her competing account of transformative experience based on "proleptic" rationality from her 2018 book *Aspiration: The Agency of Becoming*.

ANSWER: Agnes **Callard** [or Agnes **Gellen**]

<Caleb Kendrick, Philosophy>

15. Because he was not yet a principal musician in the Philadelphia Orchestra, John De Lancie had to relinquish his rights to the US premiere of Richard Strauss's concerto for this instrument. For 10 points each:

[e] Name this instrument that De Lancie played in the Philadelphia Orchestra for over two decades. This double-reed instrument plays the least flexible pitch in the orchestra.

ANSWER: **oboe**

[h] Strauss's concerto was first recorded by a British oboist with this surname, Leon. Leon also premiered an oboe concerto by his brother with this surname, who led the Cincinnati Symphony during the Depression and World War II.

ANSWER: **Goossens** [accept Leon **Goossens** or Léon Jean **Goossens**; accept Eugene **Goossens** or Eugene Aynsley **Goossens**]

[m] De Lancie only first performed Strauss's concerto during a residency by the Philadelphia Orchestra at this institution. Franz Liszt's *Les Préludes* concludes every summer season at this Michigan music festival.

ANSWER: **Interlochen** Center for the Arts [accept **Interlochen** Arts Camp; accept the **National Music Camp**]  
<Jacob Egol, Classical Music and Opera>

16. *Two answers required.* A paper by these two economists was inspired by their decision to offer an efficiency wage when searching for a nanny in the highly-competitive Berkeley childcare market. For 10 points each:

[h] Name these two economists who developed the fair wage-effort hypothesis, in which workers who are being paid a wage below their fair wage will contribute proportionally less effort to their job.

ANSWER: George **Akerlof** AND Janet **Yellen** [or George Arthur **Akerlof** AND Janet Louise **Yellen**]

[m] This term describes workers who are contributing less than optimal effort to a firm. Attempts to combat this behavior include merit pay and giving workers equity in the firm.

ANSWER: **shirking**

[e] A model of efficiency wages whose "no shirking condition" explains involuntary unemployment by the fact that employers will not go below the equilibrium wage is named for Carl Shapiro and this author of *Globalization and Its Discontents*.

ANSWER: Joseph **Stiglitz** [or Joseph Eugene **Stiglitz**; accept **Shapiro–Stiglitz** model]  
<Ryan Rosenberg, Social Science>

17. Answer the following about the history of conflict between print and radio news in America, for 10 points each.

[m] Radio coverage of this event helped convince the newswire services to stop working with radio broadcasters. *Liberty* magazine published a series on John Condon's involvement in the aftermath of this event with the title "Jafsie Tells All."

ANSWER: **kidnapping** of the **Lindbergh** baby [or **kidnapping** of Charles Augustus **Lindbergh** Jr.; accept **murder** or **death** in place of "kidnapping"; prompt on partial answer; prompt on **Crime of the Century**]

[e] Despite only a modest audience hearing the original broadcast, newspapers greatly exaggerated the panic caused by a radio adaptation of *The War of the Worlds* by this director.

ANSWER: Orson **Welles** [or George Orson **Welles**]

[h] In 1933, William S. Paley called for a meeting of representatives of both sides, which produced this agreement. This agreement limited broadcasters to a few minutes of news a day with information sourced from the papers.

ANSWER: **Biltmore** Agreement

<Alex Fregeau, US History>

18. The protagonist of a novel by this author proposes the doing of a “Most Terrible Deed” in order to escape a cellar filled with people who periodically gore each other in the thigh with bent spurs. For 10 points each:

[m] Name this author who wrote of Gonzalo’s attempts to both sleep with Ignatio and trick him into murdering his father in a fictionalization of their accidental exile in Argentina, the comic novel *Trans-Atlantyk*.

ANSWER: Witold **Gombrowicz** (“VEE-told gom-BROH-veech”)

[h] While exiled in Argentina, Gombrowicz began work on his *Diary*, whose first four entries each consist solely of this short word. Give either the Polish word or English translation.

ANSWER: “**me**” [or “**ja**”]

[e] In an early entry of the *Diary*, Gombrowicz responds to this author’s critique of *Trans-Atlantyk* as irrelevant to a Poland under Marxism. Later in the *Diary*, Gombrowicz notes his approval of this Polish-American author’s *The Captive Mind*.

ANSWER: Czesław **Milosz** (“CHESS-waff MEE-woash”)

<Arya Karthik, European Literature>

19. Immigrants from this archipelago known as Isleños settled in Louisiana’s St. Bernard Parish, which is home to a small community that still speaks this region’s dialect of Spanish. For 10 points each:

[e] Name this archipelago whose island of La Gomera is home to a whistled register of Spanish known as *el silbo*. The now-extinct Guanche language shaped this archipelago’s distinctive dialect, spoken on its island of Tenerife.

ANSWER: **Canary** Islands [or **Canaries** or Islas **Canarias**]

[m] The “bird language” spoken in the village of Kuşköy (“KOOSH-kay”) is a whistled register of this language. In this language, vowel harmony requires *-da* suffixes to appear after back vowels and *-de* suffixes after front vowels.

ANSWER: **Turkish** [or **Türkçe**]

[h] A nearly-extinct whistled dialect called *şfyria* is spoken in this island’s village of Antia. This island’s southern municipality of Karystos is home to a small community of monolingual speakers of Arvanitika.

ANSWER: **Euboea** [or **Evia**]

<Caleb Kendrick, Geography>

20. Robert C. James names a textbook example of a space that is isomorphic to this other space even though its canonical embedding into this space is not a surjection. For 10 points each:

[h] Name this type of space defined relative to a space  $X$ . Elements of one of these spaces take in a linear functional on  $X$  and spit out a scalar.

ANSWER: **double dual** space [or **bidual** space; accept the **dual** of the **dual** space; reject “dual space”]

[e] This adjective describes a space whose canonical embedding is a bijection into its double dual. This adjective names the axiom that  $x$  equals  $x$ .

ANSWER: **reflexive** [accept word forms like **reflexivity**; accept **reflexive** axiom or **reflexive** property]

[m] One mathematical convenience of the canonical embedding is that it has this property of preserving distances between points.

ANSWER: **isometry** [accept word forms like **isometric**]

<Tim Morrison, Other Science - Mathematics>