TOSSUPS

1. **The part of Pierre Bayle's *Historical and Critical Dictionary* on the problem of evil begins with this writer's quote that "most things give way to the mind," which he illustrated by claiming if honey did not exist, people "would think that figs were far sweeter." This philosopher's claim that "all things come from the Earth" led later scholars to identify "earth" as his "ruling principle." Plato's call for the banishment of the poets from the Republic draws from the repudiations of (*)** Homer and Hesiod found in the fragmentary works of this thinker, whom Plato credits as the "beginning" of the "Eleatic tribe." This thinker's suggestion that "mortals suppose that gods are born / wear their own clothes," is often said to be the first recorded expression of monotheism. This thinker stated that if horses and cows had hands, they would draw gods that looked like horses and cows in a repudiation of anthropomorphizing deities. For 10 points, name this pre-Socratic philosopher from Colophon.
ANSWER: **Xenophanes** of Colophon
<Philosophy, Ike Jose>

2. **The equivalence classes of orientation preserving diffeomorphisms from one of these spaces to another one of these spaces define a Teichmüller space. If *D* is a divisor on a compact one of these spaces, then the difference between the dimensions of two vector spaces defined by *D* equals the degree of *D* plus one minus the space's genus. Given a map between two of these spaces, the Euler characteristic of the spaces can be calculated from the ramification points of the map by a theorem co-named for Adolf Hurwitz. An important result used to classify these spaces is the (*)** uniformization theorem, which states that there are effectively just three unique simply connected ones. These spaces are connected, complex dimension one manifolds. An example of these spaces with the same namesake stereographically projects onto the complex plane. The complex plane with a point at infinity forms a sphere that is one of, for 10 points, what spaces named for a German mathematician?
ANSWER: **Riemann surface**s [prompt on manifolds; prompt on complex manifolds; prompt on Riemann sphere; reject "Riemannian manifold" or "Riemannian space"]
<Other Science: Math, Jonathen Settle>

3. **This thinker likened moving humans to tight-rope walkers who must always move in one direction and argued that, if a "second direction" were discovered, people would have a new range of experiences. This thinker's so-called "codex" consists of some 2,000 pages of illegible handwritten notes. This thinker, who developed a "water box" device which used 80,000 gallons in a week, was partially blamed for World War I in a book by Le Fournier. This thinker posited that sleep was caused by semi-asphyxiation from breathing in "black air" and that north/south and east/west were the same, concluding that the (*)** Earth was, in fact, shaped like a sausage. In order to publish commentaries on this author of the *County Album* and *Golden Hours*, an amateur scholar murders Mathers with a spade and steals his cash-box. For 10 points, the writings of what fictional Oriental savant are referenced in *The Dalkey Archive* and *The Third Policeman* by Flann O'Brien?
ANSWER: **De Selby** [prompt on Selby]
<Long Fiction, Itamar Naveh-Benjamin>

4. **A biography by Donnie Radcliffe discusses how its subject wrote an essay about this man with Alan Schechter as an advisor, drawing on her time meeting this man in high school while living in Park Ridge. This man's best-known book begins by declaring it is written "for those who want to change the world from what it is to what they believe it should be." Investment banker Marshall Fields III funded this man's work in the Back of the Yards, which grew into the Industrial Areas Foundation. This man's maxims include "Pick the target, freeze it, personalize it, and polarize it" and (*)** "Power is not only what you have but what the enemy thinks you have." Hillary Clinton's undergraduate thesis was about this man's methods, which were taught by Barack Obama during his late 1980s work in Chicago, prompting much Republican criticism in the 2008 election. For 10 points, name this author of *Rules for Radicals*, a pioneering community organizer.
ANSWER: Saul **Alinsky**
<American History, Will Alston>

5. **An 18th-century example of these artworks named for a Mrs. Deitrich is the best preserved example of the sulfur-inlay process, used to etch reliefs onto these objects' surfaces. The Met contains one of these artworks often known as *The Conquest of Trebizond* which depicts the Strozzi coat of arms. Caroline Campbell organized arguably the only exhibition to focus on these artworks at the Courtauld Gallery, whose centerpiece were a pair of these things commissioned by Giovanni Morelli. In addition to beds, (*)** backboards called *spalliere* ("spahl-LYAH-ray") were often created for the Italian forms of these artworks, whose surfaces were soaked with gesso, and then decorated with scenes from *The Aeneid* or *Decameron*. The Italian *forzieri* ("fort-ZYAY-ree") and *cassoni* ("kahs-SOH-nee") are examples of the "marriage" type of these objects, often used to hold dowries before a wedding. For 10 points, give this type of furniture used by Captain Thomas Tew, AKA the Rhode Island Pirate, to hold his booty.
ANSWER: treasure **chest**s [accept **marriage chest**s or **dowry chest**s; accept *cassoni* before "cassoni"; prompt on **box**es]
<Painting/Sculpture, Ike Jose>

6. **In 1757, the last-ever witch trials in this country were stopped by the intervention of Charlotte De la Gardie. The suffrage movement in this country was inaugurated by the editors of the women's magazine *Home Review*. Equal access for men and women to jobs in the civil service was affirmed by this country's 1923 "Competence Law." This country's Civil Code of 1734 was revised in the mid-19th century to grant women legal majority at age 25 after the publication of the feminist novel (*)** *Hertha* by Fredrika Bremer. In 1721 this country's queen Ulrika Leonora renounced the powers of absolute monarchy, contributing to a democratic era dominated by the Hats and Caps factions. Before converting to Catholicism, another of its queens spent years turning its capital into the "Athens of the North." For 10 points, name this country ruled by Queen Christina of the Vasa dynasty.
ANSWER: **Sweden** [or Kingdom of **Sweden** or Konungariket **Sverige**]
<Post-500 Euro History, Will Alston>

7. **Fishermen in this country feared a cryptid with a pig's head and fish's tail which would jump in their boats and eat their catch. A seductress from this country is married to a monster who uses his axe as a cane and entrances young women who venture into the forest to collect firewood. Another creature from this country was raised on human flesh from cemeteries after its leg was permanently twisted behind its back by a warlock. This country is home to the *cuchivilu* ("koo-chee-VEE-loo"), *fiura* ("fee-OO-rah"), and *trauco* ("TRAO-koh") monsters. It witnessed a battle between Ten Ten and Cai Cai, a pair of giant (*)** snakes, which supposedly fragmented its coastline. Islanders from this country tell of a deformed dwarf called the *imbunche* ("eem-BOON-chay"), which informed a novel from this country about Humberto Peñaloza ("oom-BAIR-toh pen-yah-LOH-sah") titled *The Obscene Bird of Night*. For 10 points, name this South American country where many tales are told by the native Araucanian people.
ANSWER: **Chile** [or Republic of **Chile**] (Most of the clues are about the island of Chiloé.)
<Legends, Will Alston>

8. **Yanagisawa and Itami discovered that this reagent can unusually catalyze a metal-free biaryl coupling. This reagent activates dimethyl diazo·methyl·phosphonate in the first step of the Seyferth-Gilbert homologation. Either lithium-H·M·D·S or this reagent was used as the base in the first generation of Buchwald-Hartwig couplings. One formulation of this base can have its basicity enhanced by D·M·S·O to a conjugate p·K·a of about 32.2 by creating a naked anion. This base is mixed with n-butyllithium in the most common formulation of (*)** Schlosser's base. Like L·D·A, this base, whose conjugate acid has p·K·a around 17, is commonly used to abstract a hydrogen to create the "Hoffman" product in an E·2 elimination reaction. For 10 points, name this alkoxide anion, a sterically-hindered base created by deprotonating the simplest tertiary alcohol.
ANSWER: potassium **tert-butoxide** [accept sodium **tert-butoxide** or lithium **tert-butoxide** due to ambiguities, accept **t-butoxide** instead of tert-butoxide in any of those answers, accept **t-BuOK**, **KO-t-Bu**, **t-BuONa**, **NaO-t-Bu**, **t-BuOLi**, **LiO-t-Bu**]
<Chemistry, Eric Mukherjee>

9. **The postscript to a story by this author proposes the moral: "to write, one must have more than big balls," referring to how the story's title character died because his scrotum was afflicted with elephantiasis. In another story by this author, a character prevents the theft of his employer's chickens by capturing, flaying, and nailing the offending skunk to a doorpost. The protagonist of a third story by this writer is beset by German Shepherds and jumps into a boiling furnace. Joseph (*)** Brodsky called one of this author's collections an "account of the self-destruction of that berserk Trojan horse called Comintern." In the title story of that collection by this author, Fedukin orders the execution of a pair of healthy men and the title character agrees to write a falsified confession admitting that he spied on the Russians for Britain. For 10 points, what Serbian author wrote *A Tomb for Boris Davidovich*?
ANSWER: Danilo **Kis** ("keesh")
<Short Fiction, Itamar Naveh-Benjamin>

10. **In the opera in which this piece appears, its melody is introduced about one-third of the way into the overture by a solo oboe and clarinet following a soft brass chorale. This triple-meter piece opens the scene directly *following* one featuring the duet "Oh di qual onta aggravasi questo mio crin canuto," in which a man begs to reverse the death warrant he unwittingly signed for his daughter. This G-flat major piece, whose libretto asks why a harp is hanging "silent from the willow," begins with the notes: (*)** "Long A-sharp, short G-sharp, short F-sharp, long C-sharp." Its line "O mia patria, si bella e perduta," meaning "Oh my country, so beautiful and lost," resonated strongly with Italian nationalists and was used as an unofficial anthem. This piece is sung by a group on the banks of the Euphrates and is based on Psalm 137. A line meaning "Fly, thought on golden wings" begins, for 10 points, what chorus sung by exiled Jews in the opera *Nabucco*?
ANSWER: "**Va, pensiero**" [or "Chorus of the **Hebrew Slaves**" or **Hebrew slaves** chorus; accept **"Fly. thought** on golden winds" before "Fly"; prompt on *Nabucco* or *Nabucco* chorus before "Nabucco"]
<Classical/Opera, Will Alston>

11. **This man's daughter ordered Ogasawara Shōsai to burn down her mansion after it was captured by Ishida Mitsunari in the lead-up to Sekigahara, since she was a Christian who refused to commit *seppuku*. A popular conspiracy theory holds that, instead of dying in battle, this man led a life after as a priest named Tenkai. Luís Fróis ("FROH-ees") records that this father of Hosokawa Gracia was enraged after he was kicked and forced to drink sake and his mother died during the siege of Yakami Castle. This man wrote a poem saying "The time is now, the fifth month when the rain falls" during a *renga* session before leading a (*)** march into Kyoto, where his forces besieged Mori Ranmaru and others resting inside a Buddhist temple. After orchestrating that action, this man effectively became shogun for 13 days before his defeat at the Battle of Yamazaki by Toyotomi Hideyoshi. For 10 points, name this samurai who, in the Honnō-ji incident, betrayed Oda Nobunaga.
ANSWER: **Akechi Mitsuhide** [accept either underlined portion]
<World History, Will Alston>

12. **A disease which presents with many of these structures must be excluded to satisfy the Amsterdam criteria. These structures and mucocutaneous lentigines are the criteria for an autosomal dominant disorder caused by S·T·K·11 mutations. "Arborization" gives these structures a "Christmas tree" appearance in Peutz-Jeghers syndrome. Mutations in APC causes hundred of these structures to "carpet" patients with (*)** F·A·P. As its full name suggests, Lynch syndrome typically lacks these structures. Their hyperplastic type lack malignant potential, unlike their serrated and adenomatous types. They are screened for every 10 years, starting at age 45, in a procedure whose preparation requires drinking polyethylene glycol. For 10 points, what growths are detected and biopsied by colonoscopies?
ANSWER: colonic **polyp**s [or hyperplastic **polyp**s; or hamartomatous **polyp**s; or Peutz-Jeghers **polyp**s; accept familial adenomatous **polyposis** or hereditary non-**polyposis** colorectal cancer; accept **hamartoma** due to ambiguities; prompt on tumor, colon cancer or colorectal cancer]
<Biology, Itamar Naveh-Benjamin>

13. **In a story whose title is inspired by this group, a woman recalls having a dream in which she and Aki-kun gaze out of a ship's porthole to see a full moon made of pure ice. In a story published in *The New Yorker* in 2020, the narrator lists five things created by this group which form the "background for [his] adolescence." An eccentric who uses the Kansai dialect to tweak a work made by this group appears in the second story from the short story collection** (*) *Men without Women*. In a novel, the narrator lays seven matches in a row after enjoying seven works by this group, prompting the remark "these guys knew something about the sadness of life, and gentleness" from the mental patient Reiko. That novel opens with a man recalling his youth after hearing an orchestra play a work by this group while at an airport in Hamburg. For 10 points, what quartet is praised by Toru Watanabe, the narrator of Haruki Murakami's novel *Norwegian Wood?*
ANSWER: The **Beatles**
<Misc. Lit, Ike Jose>

14. **A rash of suicides of top employees at this company in the early 2010s claimed the lives of lawyer Charles Gambino and executive William Broeksmit, the latter of whom is the focus of David Enrich's 2020 book *Dark Towers*. A more recent scandal involving this company centers on its facilitation of a so-called "Butterfly Trust" used to pay off Eastern European models. In 2015, this company's CEO Anshu Jain resigned after the initial revelation of a massive "mirror trading" operation called the "Moldovan Scheme," which exchanged** (*) rubles to benefit the Rotenbergs, Igor Putin, and other oligarchs. In July 2020, New York regulators fined this bank $150 million for servicing Jeffrey Epstein. Until January 2021, Donald Trump's largest lender was, for 10 points, what extremely corrupt European bank, which is the largest non-central bank based in Frankfurt and is named for its country of origin?
ANSWER: **Deutsche** Bank, A.G.
<Modern World, Will Alston>

15. **The twelfth chapter of a book by Galen Rowell compares this phenomenon to "visual riddles with unexpected answers," such that one must search for "something earthbound" to match with it. This phenomenon, a related one named for the color blue, and nighttime are created in a "time hallucination" algorithm developed by Yichang Shih. In non-ideal circumstances, a number of Fresnel lamps can be used to mimic this condition, since it has a color temperature of roughly 3,250 Kelvin.** (*) Nestor Almendros won an Academy Award for creating many shots under this condition, stating that it "gives some kind of magic...a beauty and romanticism." Emmanuel Lubezki's work for *The Revenant* and the Terrence Malick-directed *Days of Heaven* featured external shots exclusively shot during this period of time which, despite its name, usually lasts for only around 25 minutes. For 10 points, name this period of time in which the sky is indirectly lit, providing ideal conditions for photographers.
ANSWER: **golden hour** [or **magic hour**]
<OArts: Visual, Ike Jose>

16. **This ideology's insistence that "all problems are soluble" is attacked in a book linking it to the destruction of ecosystems by David Ehrenfeld. The Appignani Legal Center is operated by an association named for this ideology, whose "aspirations" are outlined in a 2002 document whose signatories include James "The Amazing" Randi. Followers of this ideology "seek to elicit the possibilities of life, not flee from them" in fashioning a "new religion" according to the fifteenth and final proposition of the** (*) 1973 manifesto titled for this ideology by Paul Kurtz and Edwin Wilson. The claim that "We are far from understanding...the essence of action" opens a 1946 letter attacking this title ideology, which prompted an essay in response declaring that "existence precedes essence." The title of an early Jean-Paule Sartre essay calls existentialism a form of, for 10 points, what anthropocentric worldview espoused by Renaissance authors such as Pico della Mirandola?
ANSWER: **humanism** [accept *The Arrogance of **Humanism*** or "The Aspirations of **Humanism**" or **Humanist** Manifesto or "Existentialism is a **Humanism**"; prompt on anthropocentrism]
<Other Academic, Brad McLain>

17. **A mosaic in Ostia which depicts some of these animals named Podagrosus, Barosus, and Potiscus, or "Lame," "Dainty," and "Tipsy," was found in the Baths of the Cisarii ("kih-SAH-ree-ee"). Livy writes that a fight over one of these animals broke out into the Battle of Pydna in Macedon. Before becoming emperor, a broke Vespasian revived his fortune by selling these animals in North Africa. The introduction of the *sarcina* ("sar-KEE-nah") and a two-forked stick sought to replace the main function of these animals, and was part of a set of (*)** reforms that also eliminated property requirements for service. To limit the size of baggage trains, the equipment carried by these animals was instead carried by late Republican legionaries, who were called Gaius Marius's examples of these animals as a result. For 10 points, name these stereotypically stubborn, sterile male hybrids of donkeys and horses.
ANSWER: **mule**s [or sedens **mulo**; accept Marius's **mule**s; do not accept or prompt on "horse" or "donkey" or "ass" or "hinny"]
<Ancient History, Will Alston>

18. **Significant responsiveness to this phenomenon was found in a paper supporting "normative" theory by Robert Shapiro and Benjamin Page, which confirms results predicted by the Downs model given perfect information. According to one book, this phenomenon forms from a "triangular relationship" between the scene, the picture of the scene, and human reaction. This phenomenon was likened to a "social skin" by Elisabeth Noelle-Neumann ("NOY-mahn"), who posited that perceptions of it drive fears of isolation in her "spiral of silence" model. A so-called "consensus" that it is too volatile to be relevant to (*)** decision making is co-named for Gabriel Almond. A 1922 book by a founding editor of *The New Republic* argues that this title concept must be managed via mass communication to control the "bewildered herd" via the "manufacture of consent." A book by Walter Lipmann is titled after, for 10 points, what set of notions which are collectively held by a populace?
ANSWER: **public opinion** [prompt on opinion; prompt on voter preferences or polling data] (The "consensus" is the Almond-Lippmann consensus.)
<Social Science: Socio/Anthro, Will Alston>

19. *Description acceptable*. **In the general equation governing various creep mechanisms, the strain rate equals a constant term times the following: the magnitude of the Burgers vector over this quantity raised to some power times stress over shear modulus raised to some other power. This microscopic quantity is refined by adding vanadium to steel. An empirical equation setting a material's yield stress proportional to the negative one-half power of this quantity is used to model Hall–Petch strengthening. This quantity is related to x-ray wavelength, the F·W·H·M of the diffraction peak, and the Bragg angle by the Scherrer equation. This microscopic quantity increases in the third and last phase of (*)** annealing, which follows recovery and recrystallization. Because boundaries disrupt dislocation motion, decreasing this quantity strengthens materials. For 10 points, name this quantity that gives the extent of regions within a material that have a preferred orientation.
ANSWER: **grain size** [accept anything indicating how **big** a **grain** is; accept **crystallite** in place of **grain**; prompt on particle size with "particle size is often incorrectly used to refer to the size of what other things?"; prompt on size with "of what?"]
<Physics, Jonathen Settle>

20. **This concept titles a poem that states "We thought / Fingers in dirt meant it was our dirt," and likens videos of Eric Garner and Mike Brown's deaths to "colors you expect in poems / Where the world ends." A 2019 collection named for this concept contains poems blending the styles of blues, ghazal, and sonnet, called "duplexes." This concept "cannot be inherited" for "if you want it you must obtain it by great labor" according to an essay stating that it is what "makes a writer most acutely conscious of his place in time." (*)** Jericho Brown's Pulitzer-winning poetry collection is named for this concept, which is responsible for the "continual self-sacrifice" and "continual extinction of personality" in relation to "dead poets and artists." An analogy comparing writing to a transforming catalyst is used to outline an "impersonal theory of poetry" in a T. S. Eliot essay whose title pairs "the individual talent" with, for 10 points, what abstract concept, partly defined by a poet's predecessors?

ANSWER: **tradition** [accept *The **Tradition*** or "**Tradition** and the Individual Talent"]

<Poetry, Will Alston>

1. This painting prefigures a later series with the same title, which consists of gouache-painted cutouts modeled on the artist's earlier painting *Joy of Life*. For 10 points each:
[10m] Name this painting inspired by a sculpture the artist saw in the Algerian city of Biskra. This painting was burned in effigy at the Armory Show.
ANSWER: *Blue Nude (Souvenir de Biskra)* [or *Nu bleu, Souvenir de Biskra*; accept *Blue Nudes* or *Nues bleus*]
[10e] This artist quipped that Matisse could "paint a nude or do a design," but not both, in response to Matisse's *The Blue Nude*. This artist painted a blue, nude version of his mistress Marie-Thérèse Walter, as well as *The Blue Room*.
ANSWER: Pablo **Picasso**
[10h] This later series of artworks was created by painting nude models blue and having them roll around on canvases as "living brushes." A 20 minute film showing the making of paintings in this series is accompanied by a single D-flat chord called the "Monotone Silence Symphony."
ANSWER: *Anthropometries* [or *Anthropometry* series] (by Yves Klein.)
<Painting/Sculpture, Will Alston>

2. Alexander Litvinenko was poisoned by polonium-210 a year after he gave an interview supporting the conspiracy theory that this event was organized by Russia's G.R.U. agency. For 10 points each:
[10h] Identify this deadly 1999 event whose lead instigator, ex-journalist Nairi Hunanyan, denied having any connections to foreign intelligence or domestic political opposition. A description is fine.
ANSWER: **Armenian parliament** massacre [accept any answer which indicates the attack that killed **Armenia**'s **Prime Minister**, or that targeted its parliament]
[10e] Litvinenko alleged that G.R.U. organized the massacre to stop Armenia's ceasefire talks with Azerbaijan over this exclave. The two countries dispute this territory along with Nakhchivan.
ANSWER: **Nagorno-Karabakh** [or **Artsakh** Republic]
[10m] This leader of a nearby country survived three assassination attempts in 1992, 1995, and 1998, the last of which was linked to Russian agents. Mass protesters during the Rose Revolution forced this leader out of office after he was caught committing blatant electoral fraud.
ANSWER: Eduard **Shevardnadze**
<World History, Will Alston>

3. In one version of this technique, a pulse of current is passed through a graphite die. For 10 points each:
[10h] Name this metallurgical process in which a material is compacted into a solid mass using pressure and heat, but without melting or liquefying it.
ANSWER: **sinter**ing [or **frittage**]
[10e] Sintering is commonly used to shape metals with a high melting point, like this element, which is commonly found in the filament of light bulbs.
ANSWER: **tungsten** [or **W**]
[10m] Liquid-phase sintering is used to work with a nitride of this element, in which three atoms of it are bonded to four of nitrogen. The amorphous form of this element, when hydrogenated, has an increase in recombination current with light exposure in the Staebler-Wronski effect.
ANSWER: **silicon** [or **Si**]
<Chemistry, Eric Mukherjee>

4. A notorious real-life instance of these events is the basis of the novel *American Woman* by Susan Choi, which centers on Jenny Shimada, a fictional version of Wendy Yoshimura. For 10 points each:
[10m] Name these events, another example of which inspired a novel by Emma Donoghue in which one is perpetrated by "Old Nick." Sloane plans one of these events to get revenge on her husband Mickey in Thomas Pynchon's novel *Inherent Vice*.
ANSWER: **kidnapping**s [or **abduction**s; prompt on captivity] (Donoghue's novel is *Room*.)
[10e] This Chilean author was inspired by the rampant kidnappings and femicides in Ciudad Juarez to include dozens of pages recording similarly graphic crimes in Santa Teresa in his novel *2666*.
ANSWER: Roberto **Bolaño**
[10h] This British-Libyan author recalls his family's attempts to find his father, who was kidnapped by the Gaddafi regime, in his memoir *The Return*. His novel *Anatomy of a Disappearance* is also about a kidnapping.
ANSWER: Hisham **Matar**
<Misc. Lit, Will Alston>

5. This linguist's book *The Languages of Africa* established the classification of Bantu languages and their position in the Niger-Congo superfamily. For 10 points each:
[10m] Name this linguist who defined 35 different typological and syntactic similarities shared by almost all human languages, which he termed "linguistic universals."
ANSWER: Joseph **Greenberg**
[10h] Joseph Greenberg constructed Niger-Congo using this highly disputed method, which relies on creating large tables of words with the same lexical meaning and focusing solely on sound correspondences.
ANSWER: **mass comparison** [or **multilateral comparison** or **mass lexical comparison**; prompt on comparison or comparative method]
[10e] Most of the time, mass comparison didn't really work, leading to such results as the linguistic grouping of the Khoikhoi with these people of the Kalahari desert; today, their two language families are thought to be unrelated.
ANSWER: **San** **bushmen** [accept either underlined portion; prompt on Khoisan]
<Social Science: Ling, Will Alston>

6. Aphorisms by this author include "Life is given to us, we earn it by giving it" and "Faith is the bird that feels the light and sings when the dawn is still dark." For 10 points each:
[10m] Name this author who wrote a "morning song" which addresses a "ruler of the minds of all people" and a "dispenser of destiny" and repeats the line "victory, victory, victory to thee!"
ANSWER: Rabindranath **Tagore** [or Robindronath **Thakur**] (The "Morning Song" is "Jana Gana Mana.")
[10e] Many of Tagore's most quoted lines, often used as aphorisms, come from this best-known collection of his. This collection's poem "Where the Mind is Without Fear" declares "let my country awake!"
ANSWER: *Gitanjali* ("ghee-THAN-juh-lee") [or *Song Offerings*]
[10h] This later collection by Tagore contains some 320 poems, many of which are one-line aphorisms. Its title poem describes creatures which "come to my window to sing and fly away."
ANSWER: *Stray Birds* [or *Two Birds* or *Dui Pākhi*]
<Poetry, Will Alston>

7. The symmetric or bosonic type of these spaces gives a natural realization of the canonical commutation relation, or CCR. For 10 points each:
[10m] Name these spaces whose basis states are written using the occupation number representation. These spaces are defined as a tensor product of Hilbert spaces.
ANSWER: **Fock** spaces
[10e] The CCR for bosonic creation and annihilation operators states that the commutator of b-sub-i with b-star-sub-j equals a function denoted by this letter of i and j. That function named for Leopold Kronecker and denoted by this letter equals one if its two inputs are the same and zero otherwise.
ANSWER: **delta**
[10h] The CCR is rigorously stated in this form, as in the original form both operators cannot be bounded. This representation exponentiates the original operators to give a new commutation relation.
ANSWER: **Weyl** commutation relation
<Physics, Jonathen Settle>

8. The appropriately-nicknamed "Bully" Hayes was among the most notorious sailors to prowl the Pacific for this practice until his ship's cook shot him, to the rest of the crew's strong approval. For 10 points each:
[10h] Name this practice of kidnapping laborers, particularly Pacific Islanders, to work on plantations, particularly those in Queensland. It was common in the mid-19th century.
ANSWER: **blackbird**ing [or **blackbirder**s]
[10e] Blackbirding victims were a prime source of labor in this present-day country until the 1870s, when the British decided to use the more ethical practice of bringing Indian laborers instead. This Pacific country's capital is Suva.
ANSWER: **Fiji** [or Republic of **Fiji**, or **Viti**]
[10m] Peruvian magnates on these islands hired blackbirders to kidnap workers to mine guano. Spain seized these islands to acquire those mines in the 1860s, but was repulsed by a coalition of South American countries.
ANSWER: **Chincha** Islands [or Las **Chincha**s; accept **Chincha** Islands War]
<CW / International History, Will Alston>

9. This film is named for a popular song performed by Ethel Walters at the Cotton Club. For 10 points each:
[10h] Name this 1943 musical film created by MGM to entertain soldiers during World War II. Its score features many compositions by Fats Waller, including "Ain't Misbehavin."
ANSWER: *Stormy Weather*
[10e] *Stormy Weather* stars "Bojangles" Robinson, a master of this style of dancing, as Bill Williamson. This dance style was also the expertise of Fred Astaire.
ANSWER: **tap** dancing
[10m] In *Stormy Weather*, this scat singer behind "Minnie the Moocher" picks Bojangles up to appear in the film's central benefit show. In the film, Bojangles performs while this musician's big band, a fixture of the Cotton Club, plays its standard "Jumpin' Jive."
ANSWER: "Cab" **Calloway** [or Cabell **Calloway** III]
<OArts: Auditory, Will Alston>

10. A major tourist attraction in this region is the Great Stalacpipe Organ, which can serenade you with the Moonlight Sonata by tapping stalactites with a rubber mallet. For 10 points each:
[10m] Identify this geographic region home to Luray Caverns, as well as the Skyline Caverns, Grand Caverns, and Endless Caverns. Its major cities include Staunton and Harrisonburg.
ANSWER: **Shenandoah** Valley [or **Shenandoah** Mountains; prompt on Western Virginia or West Virginia or Appalachia or Appalachians or Blue Ridge Mountains]
[10e] Perhaps the most iconic cultural reference to the Shenandoah Valley is from this song about the title locations in West Virginia, first sung by John Denver.
ANSWER: "**Take Me Home**, **Country Roads**" [accept either underlined portion]
[10h] I-81, the primary highway of the Shenandoah Valley, traces a similar path through the Appalachians to this historic road. This road began in Philadelphia and crossed through the German-settled areas of Pennsylvania, bringing many settlers down south to North Carolina and Tennessee.
ANSWER: **Great Wagon** Road [or **Great Philadelphia Wagon** Road]
<Geography, Will Alston>

11. This character and his son are both in love with the poor girl Marianne, who is revealed to be the daughter of the wealthy Anselme, who in turn is revealed to be the shipwreck survivor Don Thomas. For 10 points each
[10m] Name this character who, in the play he appears in, threatens to hang everyone in town after his most precious possession--a strong box containing gold crowns--is dug up and stolen from his garden.
ANSWER: **Harpagon** ("ar-pah-GOHN") [DO NOT reveal otherwise, but prompt on *The Miser* or *L'Avare*]
[10e] Harpagon is the avaricious title character of this comedy by Molière.
ANSWER: *The **Miser*** [or *L'**Avare***]
[10h] In Act III, this elderly woman acts as a matchmaker and humorously tries to convince Harpagon that even though Marianne has no dowry, the fact that she doesn't gamble or eat very much will make up for it.
ANSWER: **Frosine**
<Drama, Jack Mehr>

12. This object was originally recovered from the waters near Coptos, where it was at the center of a series of nested boxes ending with a gold box wrapped in a snake. For 10 points each:
[10h] Name this object, which is later taken from the tomb of Naneferkaptah ("NAH-neh-fair-KAP-tah") by Setne ("SET-nay"). As punishment for stealing this object, Setne is given visions where he is seduced by a priestess, who commands him to murder his family.
ANSWER: The **Book of Thoth** [accept **Djehuty** in place of "Thoth"]
[10e] In the story, that illusory priestess serves this cat-headed goddess, who is the consort of Ptah and is depicted holding an aegis and sistrum.
ANSWER: **Bast**et [or **Ubaste**; or **Ailuros**]
[10m] Along with the ability to speak to animals, the Book of Thoth contained a spell allowing the user to see this group of gods. This group, which was led by Atum, had its worship centered on Heliopolis.
ANSWER: Great **Ennead** [or **Pesedjet**]
< Legends, Brad McLain >

13. For 10 points each, answer the following related to succinct data structures.
[10e] Unlike data that has undergone this process, data stored in succinct data structures can be queried. Lossless approaches to performing this process, like LZW, are reversible.
ANSWER: **compression**
[10h] The rank and select operations used to navigate succinct data structures have this time complexity. Although impractical in practice, Brodal queues have this time complexity in the worst case for meld, insert, and decrease-key.
ANSWER: **O(1)** ("oh-one") [accept **order one**; accept **constant** time]
[10m] A succinct data structure named for these functions consisting of a binary tree of bit vectors is used to store compressed strings on disk. Transforming signal data with these functions allows analysis to be done at different scales, and that transform works well for signals with discontinuities, unlike the Fourier transform.
ANSWER: **wavelet**s [accept **wavelet** tree; accept **wavelet** transform]
<Other Science: Computer Science, Jonathen Settle>

14. In 2012, archaeologists discovered the skeleton of a 14-year-old girl in this city whom they determined had been eaten alive, and nicknamed her "Jane." For 10 points each:
[10m] Name this city whose original fort was confirmed to *not* be submerged by archaeologists of its Rediscovery Project. Those archaeologists based their investigations on letters about this city from William Strachey.
ANSWER: **Jamestown**, Virginia
[10e] Jane appears to have been eaten during the dark winter of 1609, which is known by this name in Virginian history, as only 60 of Jamestown's 500 inhabitants survived it.
ANSWER: **Starving Time**
[10h] In 1958, divers found this ship which was sent to supply Jamestown during the Starving Time, but wrecked off the coast of Bermuda. Strachey's writings about this ship may have been a source of inspiration for *The Tempest*.
ANSWER: *Sea Venture*
<American History, Will Alston>

15. This action titles a book of aphorisms and fragments by Eugene Thacker whose lovely lines include "the quiet vertigo in our ears is the slumbering turning of diffident dripping black moons." For 10 points each:
[10m] Name this action. In the 1843 book that first defined it, the "movement" of this action is identified in "tragic heroes" such as Agamemnon, who reconcile with existence as they perform it.
ANSWER: **infinite resignation** [accept knight of **infinite resignation**; prompt on resignation]
[10e] This book by Søren Kierkegaard discusses how "knights of faith" such as Abraham go further than Agamemnon by reconciling with the absurdity of faith after the movement of infinite resignation.
ANSWER: *Fear and Trembling* [or *Frygt og Bæven*]
[10h] In the preface to *Fear and Trembling*, Kierkegaard uses this term to denote the Hegelian view with which he disagrees in the book, snarkily referring to its supporters as "bag-peerer[s] at the custom house" before whom the writer "prostrate[s]" himself.
ANSWER: the **System** [or **Sistem**] (I suppose it's fitting that Kierkegaard talks about *angst* a lot. Well, *angest* in the original German, but same thing.)
<Philosophy, Will Alston>

16. In 2021, a piddling literary scandal resulted when the retired intellectual property lawyer Robin Byloe published a thirteenth volume to this series, and it was sanctioned by its author's son John. For 10 points each:
[10e] Name this twelve-volume novel sequence narrated by Nick Jenkins and written by Anthony Powell ("pole").
ANSWER: A *Dance to the Music of Time*
[10h] That disputed 2021 volume of the series is narrated by this financially unstable former army captain. This unreliable uncle of Nick Jenkins dies in a rundown South Coast hotel in the novel *The Kindly Ones*.
ANSWER: Uncle **Giles** Jenkins [reject "Jenkins"] (The novel is *The Ordeals of Captain Jenkins*.)
[10m] In *A Question of Upbringing*, Nick gets in trouble after Giles uses one of these objects inside Nick's room at Eton. In *Lucky Jim*, Christine helps Jim after an accident involving one of these objects and his sleeping bed.
ANSWER: **cigarette**s [or **cig**s; prompt on tobacco products]
<Long Fiction, Joseph Krol>

17. Pieces in this style usually begin with an *alap*, in which the vocalists improvise while accompanied by *tanpura* drones, before the main text begins. For 10 points each:
[10h] Name this style of classic Hindustani singing. The medieval composer Tansen wrote epic pieces in this style, which is often accompanied by the *pakhawaj* ("PAH-kuh-wahj") drum.
ANSWER: **dhrupad** [or **dhruvapada**]
[10e] This *sitar* player was classically trained in *dhrupad* singing and other Hindustani music, which shows in his score to Satyajit Ray's *Apu Trilogy*. He was also a key influence on the Beatles.
ANSWER: Ravi **Shankar**
[10m] *Dhrupad* is organized around these musical modes, two of which are used by the two singers in *jasrangi* music. These modes, ubiquitous in Hindustani and Carnatic music, are named for the "color" of their tones.
ANSWER: **raga**s [or **rag**s]
<Classical/Opera, Will Alston>

18. A Jewish woman from this city named Licoricia amassed a huge fortune through business dealings despite the fact that most of the estate of her deceased husband, David of Oxford, was confiscated. For 10 points each:
[10h] Name this home of one of medieval England's largest Jewish communities, which lost its leader Abraham Pinch in 1220 after he was hanged for blood libel. This city was built atop the Roman town of Venta Belgarum.
ANSWER: **Winchester** [accept Licoricia of **Winchester**]
[10m] Like his rival Henry III, this client of Licoricia of Winchester owed her a lot of money, but decided to pay her back by sacking Winchester's Jewish quarter in 1264. This noble was killed a year later at the Battle of Evesham.
ANSWER: **Simon** de **Montfort**, 6th Earl of Leicester [accept **6th Earl of Leicester**; prompt on Earl of Leicester; prompt on de Montfort]
[10e] The Jews of Winchester had even worse luck when this king decided to expel them, along with the rest of England's Jews, from the kingdom in 1290. This king won the Battle of Falkirk against William Wallace.
ANSWER: **Edward I** [or Edward **Longshanks**; prompt on Edward]
<Euro History, Will Alston>

19. According to legend, this religion was founded by Tonpa Shenrab after he studied in the spiritual plane of Tagzig Olmo Lung Ring. For 10 points each:

[10m] Name this Himalayan religion led by spiritual masters known as Tertons, which was revived following the rediscovery of a *terma* text titled *A Cave of Treasures.*

ANSWER: **Bon** [or **Bonpo**]

[10h] According to Father Francis Tiso, the resurrection of Christ may actually have been an instance of this phenomenon reported in both Bon and Tibetan Buddhism, where the physical being becomes light after death. This phenomenon is held to be an outside view of when a spiritual master unites with *rigpa*, or knowledge.

ANSWER: **rainbow body** phenomenon [or **Jalü**; or **Jalus**; prompt on Saṃbhogakāya]

[10e] In a book titled *Dzogchen*, this man recounts how, after becoming a rainbow body, Garab Dorje's hand stayed behind to give a tiny casket to his disciples. This man also wrote *The Art of Happiness* and *Freedom in Exile.*

ANSWER: 14th **Dalai Lama** [or **Tenzin Gyatso**; accept any answer indicating the current **Dalai Lama**]

<Theology/Practice, Brad McLain>

20. In this model, each member of the population carries either the A or B allele, with a fitness difference between them. For 10 points each

[10h] Name this simple model of a finite population in which, at each timepoint, one member reproduces and one member is killed.

ANSWER: **Moran** model

[10e] Unlike the Moran model, which deals with finite populations, this other equation models an infinite randomly-mating population. The central equation of this model is p squared plus two p q plus q squared equals 1.

ANSWER: **Hardy-Weinberg** equilibrium [or **HWE**]

[10m] A given allele in the Moran model eventually either goes extinct or reaches this state, in which it has taken over the whole population.

ANSWER: **fixation** [or **fixed**; accept word forms, but not synonyms]

<Biology, Eric Mukherjee>