ACADEMIC COMPETITION FEDERATION

ACF NATIONALS 2022

PACKET 13

Packet by

The Editors (4)

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TOSSUPS

1. The *Apostolic Constitutions* instruct deacons to perform this action for brethren who are "weak and infirm." According to 1 Timothy ("first timothy"), one requirement for widows to receive church support is doing this action "for saints." In one of his homilies, John Chrysostom preached that his followers should do this action "with the same zeal" as done by Christ, even for slaves. Simon hears a parable about owing fifty or five hundred denarii ("deh-NAH-ree-ee") to a moneylender after this action is done by a sinful woman. In John 12, Judas complains that instead of giving money to the poor, Mary Magdalene performs this action with an expensive perfume called nard. In John 13, Peter is told that he will "have no part with me" if he refuses to accept Jesus doing this action. On Maundy Thursday Jesus performed, for 10 points, what humble act of cleaning a lower body part?
ANSWER: **washing feet** [or **anoint**ing of **feet** accept **foot washing** or equivalent answers involving **water** and **feet**; prompt on ablution or washing by asking "of what?"]
<Religion>

2. A corrupt politician from this country punches Michael Jackson and walks around picking up gold bars in a work called *I'm Sorry*. A group of unidentified criminals in this country sent a letter addressed "to the police fools" asking "Are you stupid?" and included the "Fox-Eyed Man." In 2011, this country's FACTA magazine published allegations that Michael Woodford's company had been hiding massive losses. Shady land deals made by this country's "construction state" were exposed in the Black Mist scandal. In an unsolved crime from this country, a group called The Monster with 21 Faces kidnapped the CEO of the food company Glico ("GLICK-oh"). In this country, "dancing cat fever" resulted from the methyl·mercury poisoning of water by the Chisso Corporation. For 10 points, name this country where Minamata disease broke out, and where businesses are extorted by *yakuza*.
ANSWER: **Japan** [or **Nihon**-koku or **Nippon**-koku] (*I'm Sorry* is an arcade game where you get to play as Tanaka Kakuei, an extremely corrupt politician from the LDP.)
<World History>

3. In an exhibit by this artist, eight robot-controlled poles wave red flags that beat the ground at random intervals. This artist used text from the Bible and James Joyce to generate a book of verses while in residence at the Australian Institute for Machine Learning. This artist used a custom six-foot-long, MIDI ("middy") controller in *Songs and Stories from Moby Dick*. In early appearances, this artist stood in ice skates encased in ice, and busked until the ice melted. In September 2021, this artist's retrospective *The Weather* opened at Washington DC's Hirshorn museum. This designer of the "talking stick" and the tape bow violin was the third and last wife of Lou Reed. On a track subtitled "For Massenet ("mass-uh-NAY")," she says phrases like "So hold me mom ... [in] your petrochemical arms" into a vocoder ("VO-coder"). For 10 points, name this performance artist of the 1981 hit "O Superman."
ANSWER: Laurie **Anderson** [or Laura Phillips **Anderson**]
<Other Fine Arts>

4. These creatures partly title a play in which one character is punished with an enema of ink and stones, and another character complains that the Gutenberg press ruined important men, because they began to publish their thoughts. These creatures partly title that play, in which a peasant is arrested for aiming a crossbow at a military man who attempted to abduct the peasant's future wife. In a novel, after encountering these creatures, two characters vomit on each other, when one of them drinks supposed balsam while being pelted with rocks that knock him off his horse. These animals name a town that refuses to identify the killers of Fernán Gómez de Guzmán when tortured, until the town is pardoned by Ferdinand and Isabella. For 10 points, name these animals who are mistaken for an army and attacked by Don Quixote, and whose "well" titles a Lope de Vega play.
ANSWER: **sheep** [or **oveja** ("oh-VAY-hah"); accept *The **Sheep** Well* or *The **Sheep** Fountain*; accept ***Fuenteovejuna*** ("FWEN-tay-oh-vay-HOO-nah")]
<European Literature>

5. A member of this genus has a genomic island called Octomom, which triggers over·proliferation when its copy number varies. *Francis·ella persica* and *Barton·ella melophagi* ("mell-oh-FAY-jye") were originally classified in this genus. Infection with a member of this genus increases resistance to C virus. Members of this genus synthesize heme ("heem") and riboflavin as symbionts of *Brugia malayi* ("muh-LAY-eye"), which causes filariasis ("fill-uh-RYE-uh-siss"). A pro·phage in this genus expresses cifA ("siff-A") and cifB ("siff-B"), parts of a toxin-antidote system that causes cytoplasmic incompatibility, in which the sperm of males infected by this genus cannot form viable offspring with uninfected eggs. Members of this genus cause skewed sex ratios in *Drosophila* and have been used against *Aedes aegypti* ("AY-deez ee-JIP-tye") to stop the spread of Dengue ("DENG-gay") and Yellow Fever. For 10 points, name this genus of intra·cellular alpha-proteo·bacteria that infects many arthropods.
ANSWER: __Wolbachia__ ("woll-BACK-ia")
<Biology>

6. The historian A. L. Morton, whose writings refer to an oratory "style" named for this movement in British history, collected its pamphlets in the book *Freedom in Arms*. A few hundred troops sympathetic to this movement carried out the Banbury mutiny, after which three of their leaders were martyred in Burford. William Walwyn contributed to this movement's newspaper, *The Moderate*. Richard Overton presented this movement's proposal for proportional representation, the "Agreement of the People," but walked out of the Putney Debates after it was rejected. The so-called "True" members of this movement, led by Gerard Winstanley, occupied enclosed land in an attempt to form egalitarian communities. The Diggers were an offshoot of, for 10 points, what radical English Protestant movement, which included John Lilburne and was named for flattening hedges and walls?
ANSWER: __Leveller__s [accept True __Leveller__s or __Leveller__ movement; prompt on __Agitator__s; prompt on __Diggers__ only after "True" by asking "what group were they an offshoot of?"; reject "Diggers" before "True"; prompt on __Puritanism__ or radical __Protestant__ism]
<European History>

7. This painting's artist described it as a "dream image" whose stillness would cause a viewer to "be frightened to hear a knock on the door." A staff rises out of a cup in a reimagining of this work by Salvador Dalí that is set at "the Hour of the Angelus." This work's second version was commissioned by Marie Berna in memory of her late husband just before she remarried. Originally called *A Quiet Place*, this painting received its title from art dealer Fritz Gurlitt. A happier companion piece to this painting shows swans swimming in the foreground. At the bottom of this painting, a white-shrouded figure stands beside a coffin on a small rowboat. This painting's title location features tombs carved into a wall of rocks that surrounds a grove of cypress trees. For 10 points, name this Symbolist painting by Arnold Böcklin ("BURR-kleen") that inspired a symphonic poem by Rachmaninoff.
ANSWER: The __Isle of the Dead__ [or Die __Toteninsel__; accept The __Island of the Dead__ or The __Isle of Death__]
<Painting/Sculpture>

8. The wavelength of these features grows with the cube root of their viscosity contrast according to the Biot ("bee-OH")–Ramberg equation. A side-step in the axial surface trace of one of these features indicates the presence of another one from an older generation. The poles-to-bedding of these features form a great circle on a stereographic pi diagram if these features are perfectly cylindrical. Classes of these features start at "gentle" and range through "open," "tight," and "iso·clinal" as the angle decreases between their two limbs, which flank their hinge zone at the region of maximum curvature. These features, which form as a ductile response to compressional forces, are called either syn·clines or anti·clines depending on the age of the centermost stratum. For 10 points, name these geologic structures that consist of a stack of rock layers bent by stress.
ANSWER: __fold__s [accept __syncline__s or __anticline__s before "synclines"; reject "faults"]
<Misc. Science>

9. In July 2021, Sandiaga Uno denounced this company for permitting user-generated blasphemous content and threatened to ban one of its products in Indonesia. This company's 2019 announcement that it would not ban political speech on its platforms surprised investors, since 40% of it is owned by Tencent, which has close links to the Chinese Communist Party. A position taken by this company was vindicated by Yvonne Gonzalez-Rogers's decision that "anti-steering" provisions violated California's Unfair Competition Law. This company's CEO, Tim Sweeney, criticized the banning of alternate payment methods which would allow this company to circumvent a 30% commission taken by the App Store, leading to its ongoing lawsuit against Apple. The Unreal Engine was developed by, for 10 points, what maker of Gears of War and Fortnite?
ANSWER: **Epic** Games
<Current Events>

10. In a novel partly titled for this activity, a schoolgirl is told "you look like an old woman of thirty," after drinking a special infusion to abort the baby she conceived with a man who died in prison. In another novel, a practitioner of this activity says that his longevity is due to a "vagueness" he shares with the activity itself. The title character is loved by the Manchurian youths Min and Jing and by an invading soldier, in a novel partly titled for this activity by Shān Sà. The narrator of a novel about this activity is amazed when a man returns from a three-month hospital stay with his formerly short hair now grown long and dyed black. In that novel partly titled for this activity, Otake ("oh-TAH-kay") shocks everyone by using his "sealed move" to start an attack on the other end of the board. For 10 points, in a Yasunari Kawabata novel, Hon'inbō ("HONE-een-bo") Shūsai defends his title as master of what board game?
ANSWER: **go** [or **igo**; or **weiqi**; accept *La Joueuse de **Go*** or *The Girl Who Played **Go*** or *The Master of **Go***]
<World Literature>

11. The eleventh work in a collection by this composer includes a setting in 3/1 ("three-one") time of a 14th-century Bohemian hymn. A piece by this composer instructs the bass ("base") player to pass paper through the strings to imitate drums and includes a quodlibet ("KWOD-lih-bet") titled "The lusty society of all types of humor." In its original notation, one of this composer's pieces features a key signature that has three sharps and one flat. The most famous work credited to Orazio Benevoli turned out to be composed by this man; that work, which calls for 53 different instrumental and vocal parts, is his *Missa Salisburgensis* ("salisburg-en-siss"). A G-minor passacaglia ("pah-sah-KALL-yah") for solo violin is appended to a collection by this composer that includes pieces titled "The Crowning with Thorns" and "The Carrying of the Cross," which employ *scordatura*. For 10 points, name this Baroque composer of fifteen *Mystery* or *Rosary Sonatas*.
ANSWER: Heinrich Ignaz Franz **Biber** [or Heinrich **Biber** von Bibern]
<Classical Music>

12. A custom of these people names a method of Marxist pedagogy outlined in a book of the same title by Guyanese ("GUY-uh-neez") historian Walter Rodney. After Eugenia Charles ramped up enforcement of laws against these people, militants among them backed Operation Red Dog to restore ex-prime minister Patrick John, even though John had passed those laws in the first place. In 1961, several of these people burned a Shell gas station to protest evictions, prompting a police backlash called the Coral Gardens Massacre. Michael Manley curried electoral favor among these people by carrying the "rod of correction" that Empress Zewditu's ("z'yoo-DEE-too's") successor gave him. Their persecution in Dominica included the murder of dozens of members of the Nyabinghi ("n'yah-BIN-ghee") Mansion. For 10 points, what people hold groundings and follow the *ital* ("eye-TAL") diet as part of a religion that venerates Haile Selassie ("HYE-luh suh-LAH-say")?
ANSWER: **Rastafarian**s [or **Rasta**s or **Dread**s, as they are called in Dominica; prompt on **Jamaican**s] (Rodney's book is titled *Groundings With My Brothers*.)
<Other History>

13. While listening to a musical performance, one of this author's characters becomes aware that "the world waited outside, as hungry as a tiger, and that trouble stretched above us, longer than the sky." A character created by this author sometimes wakes up at night, weeping, remembering the sounds of her daughter's screams as she writhed on the floor, dying of polio. In a story by this author, the narrator learns that his uncle was run down by a car full of drunks after peeing behind a tree. In one of his stories, the refrain "I stepped in the river Jordan" pops into the head of a deputy sheriff as he recounts to his wife how he tortured a Black protester who refused to stop singing. In another of this author's stories, the narrator reconnects with his brother, a jazz musician who was arrested for doing heroin. For 10 points, name this Black American author of "Going to Meet the Man" and "Sonny's Blues."
ANSWER: James (Arthur) **Baldwin**
<American Literature>

14. Due to compensation, a ratio in this quantity between two similar reactions is roughly constant, *except* at the iso·kinetic temperature. Changes to this quantity move a transition state along the main diagonal of a More O'Ferrall–Jencks plot. A reaction constant multiplies a substituent parameter in a class of equations named for this quantity and exemplified by the Brønsted ("BRON-sted") catalysis law. Electron transfer unexpectedly slows down as this quantity decreases without bound in the Marcus inverted region. At high temperature, this quantity dictates the selectivity of competing reaction pathways under thermodynamic control. At standard conditions, this quantity for a reaction equals "negative-n-F, times reduction potential," or equivalently, "negative-R-T, times the log of the equilibrium constant." For 10 points, name this quantity that is negative for exer·gonic, spontaneous reactions.
ANSWER: standard Gibbs **free energy** change of reaction [or **Gibbs free energy**; or delta **G**; or **reaction energy**; prompt on energy; prompt on total energy; prompt on potential energy; reject "Helmholtz free energy"; reject "activation energy" or "free energy of activation" or "Gibbs free energy of activation" or any other answers including the word "activation"; reject any answers including "enthalpy" or "heat" instead of free energy]
<Chemistry>

15. A three-volume translation of this author's political writings by Charles E. Butterworth includes selections from over ninety short aphorisms, which have also been partly translated by Douglas M. Dunlop. This author and Plato title a 1945 essay that was reused as the introduction to Leo Strauss's *Persecution and the Art of Writing*. This author of *Aphorisms for the Statesman* listed six traits needed by all successor rulers, down from twelve required in founding rulers. Plato's *Republic* inspired a work by this author that divides vicious societies into the four categories of ignorant, dissolute, turncoat, and straying, which fail to collaborate to achieve the happiness or *sa'ada* ("suh-AH-duh") found in the title *Virtuous City*. For 10 points, name this Muslim philosopher, born circa 870, whose pre-Averroes ("pre-uh-VAIR-oh-eez") Arabic commentaries on Aristotle led him to be called the "Second Teacher."
ANSWER: al-**Fārābī** [or Abū Naṣr ibn Muḥammad al-**Fārābī**; or Al**farabi**us]
<Philosophy>

16. This poem's narrator says "We divide / This apple of life, and cut it through the pips," an analogy to wrongly separating "natural things from spiritual." This poem's middlemost section urges poets to "Never flinch, / But still, unscrupulously epic, catch / Upon the burning lava of a song, / The full-veined, heaving, double-breasted Age." It ends as its protagonist sees a lover's soul as made of jasper, sapphire, chalcedony ("kal-SED-uh-nee"), and amethyst. In this poem, a would-be social reformer turns his family's hall into a "phalanstery," which a mob burns down. This poem caused scandal by portraying the out-of-wedlock motherhood of seamstress Marian Erle. This nine-book poem, written at Casa Guidi, ends after its Florence-born heroine gets a wedding proposal from her blinded cousin Romney. For 10 points, name this "novel in verse," titled for a poetess, by Elizabeth Barrett Browning.
ANSWER: *Aurora Leigh*
<British Literature>

17. A type of this region is posited to exist in the Haldane ("HALL-dane") conjecture, a claim shown to be undecidable by Toby Cubitt et al. in 2015. A "function" named for this region is denoted "delta-sub-k" and defined in terms of the BCS pairing potential. Below the temperature T^* ("T-star"), under·doped cuprate ("k'YOO-prate") superconductors exhibit a phase named for a "pseudo-" form of this region. In the nearly free electron model, this region's size is twice the magnitude of a Fourier ("foor-yay") coefficient of the periodic potential. Surface states are best described as Shockley states when this region is "narrow," and as Tamm states when it is "wide." This non-spatial region is crossed by protected edge states in topological insulators, while in semiconductors, the Fermi level lies within it. For 10 points, name this energy range between a solid's conduction and valence bands, in which no energy levels exist.
ANSWER: band **gap** [accept spectral **gap** or **gap** function or (superconducting) energy **gap** or pseudo**gap**]
<Physics>

18. This mountain titles a 1947 epic poem written in the style of Mayakovsky which basically made up a story about the guerilla activities of the United Army's Sixth Division. During a symbolic 2018 event, a leader took a cable car up this mountain and filled a bottle of water with contents from the lake at its summit. The disputed autobiography *With the Century* describes a 1937 battle in which its author crossed the Amnok ("AM-noke") river to defend this mountain. State media claimed that a death on December 17, 2011 caused the ice to fracture on this mountain's caldera, Heaven Lake. It is sometimes regarded as the "grandfather" counterpart to Mount Halla, the "grandmother." The name of this active stratovolcano in the Changbai Mountains appears in the last line of some versions of the song "Arirang" ("ah-ree-rang"). For 10 points, name this highest mountain on the Korean peninsula.
ANSWER: Mount **Baekdu** ("beck-doo") [or Mount **Paektu**, or **Baekdu**-san, or Mount **Changbai**, or **Changbai**-san] (The first clue refers to Cho Ki-chon's epic *Paektu*, a much-mined source for North Korean propaganda.)
<Other Academic>

19. This event was partly precipitated by Major Thomas Davis's arrest of forty-two residents of the Lick Creek tent colony three months earlier. Governor Howard Gore pardoned a preacher convicted of murder after this event, John Wilburn, who led an armed band including the African-American Eli Kemp. In the leadup to this event, mayor Cabell Testerman refused to honor an arrest warrant for "Smilin' Sid" Hatfield, who was shot to death by Baldwin-Felts employees. Several De Havilland-4B airplanes dropped bombs on camps during this event. An 83-year-old Mother Jones gave fiery speeches during this event, which ended after Warren Harding ordered the National Guard to break up violence between the "Logan Defenders" and UMW members. For 10 points, name this largest labor uprising in U.S. history, a strike of 10,000 coal miners in West Virginia.
ANSWER: Battle of **Blair Mountain** [prompt on 1921 West Virginia miner's strike]
<American History>

20. *Note to players: Specific term required.* William Easterly and Ross Levine concluded that variables collectively described by this term affect development through institutions, but not policies, in a paper contrasting this term with "location," "environment," and "conditions." Jack Knetsch co-wrote a paper on an experiment testing a phenomenon named for this term in which subjects exchanged coffee mugs and chocolate bars at a rate far below the 50% predicted by the Coase ("kohss") theorem. Collectively, this term denotes the set of variables that determine if a country produces commodity or capital goods in Heckscher ("HECK-sher")–Ohlin theory. "Divestiture aversion" is another name for a bias named for this term, in which agents are more willing to buy a given object than they are willing to sell the same object if they already own it. For 10 points, give this economic term for an initial allocation of resources or goods.
ANSWER: **endowment**s [accept factor **endowment**s or **endowment** effect; prompt on factors or factors of production; prompt on allocations or initial allocations or before "allocation"; prompt on descriptive answers indicating "what you start with" or "beginning resources" or similar]
<Social Science>

BONUSES

1. This person's body appears in the *Aeneid* as a myrtle bush that bleeds when Aeneas attempts to uproot it, after which Aeneas gives him a proper funeral. For 10 points each:
[10m] Name this youngest son of Priam, who was sent to live with his sister Ilione ("illy-OH-nee") in Thrace during the Trojan War. He appears as a ghost in a Euripides play after his murder by Ilione's husband, Polymestor.
ANSWER: **Polydorus** [or **Polydoros**]
[10e] Hyginus states that Polymestor tried to kill Polydorus when the Greeks offered him this woman as a wife. She instead married Pylades after helping her brother avenge their father, Agamemnon.
ANSWER: **Electra**
[10h] Ovid's account of the Polydorus myth ends with this transformation, which occurs after Polymestor's eyes are torn out. A promontory in the Thracian Chersonese ("KAIR-suh-neez") called Cynossema ("KYE-nuh-SEE-muh") was named for this event.
ANSWER: **Hecuba**'s transformation into a **dog** [accept equivalent answers; prompt on partial answers by asking "Who turned into a dog?" or "What did Hecuba transform into?"]
<Mythology/Legends>

2. A performance of Corneille's ("kor-NAY's") tragedy *Nicomède* ("nee-ko-MED") in front of Louis XIV ("the-fourteenth") allowed this acting troupe to make a permanent home in the Hôtel du Petit-Bourbon. For 10 points each:
[10m] Name or describe this company that was founded after the Illustre Théâtre collapsed in 1645. Its most famous stars included La Grange and Madeleine Béjart ("bay-ZHAR"), and it created the genre of the *comédie-ballet*.
ANSWER: La Troupe de **Molière** [accept anything that says that this is the theatrical company run by **Molière** or Jean-Baptiste **Poquelin**]
[10e] In 1664, Molière's troupe premiered *La Thébaïde* ("teh-bah-EED"), the first of this author's plays to be performed live. His other tragedies include *Phèdre* ("FED-ruh").
ANSWER: Jean **Racine** ("rah-SEEN") [or Jean-Baptiste **Racine**]
[10h] Racine's later quarrel with Molière came in part because he stole away this leading lady from Molière's company. Racine wrote the title role in *Andromaque* ("ahn-droh-MAHK") for this woman, while they were lovers, and Corneille wrote his *Stances à Marquise* ("stance ah mar-KEESS") about his unrequited love for her.
ANSWER: Mademoiselle Thérèse **Du Parc** [or Marquise-Thérèse de **Gorla**]
<European Literature>

3. Two decades before the 2021 Nobel Prize in Chemistry was awarded to asymmetric catalysis, the 2001 Prize was awarded for… [pause] asymmetric catalysis. For 10 points each:
[10e] Barry Sharpless's half of the 2001 prize was awarded for the stereo·selective addition of this functional group, a ring-strained ether ("EE-ther"), to an allylic ("al-LIL-lick") alcohol.
ANSWER: **epoxide**s ("ee-POCK-sides") [or **epoxy**; or **oxirane**]
[10m] Catalytic epoxid·ations and hydrogenations ("hye-DRAH-juh-nations") have this property with a three-letter name, which means the halves of the electro·phile are added across the same face of the double bond.
ANSWER: *syn* ("sin") additions [reject "cis" ("siss")]
[10h] The chiral ("KYE-rull") auxiliary in a Sharpless di·hydroxyl·ation is a reduced derivative of this compound. A landmark synthesis of this natural product, which contains a difficult aza·bicyclo·octane ("AY-zuh-BY-cyclo-octane"), was first reported in 1944 by Robert Woodward but wasn't replicated until 2001.
ANSWER: **quinine** ("KWAI-nine" or "KWIN-een") [or **quinidine**; or **dihydroquinidine**] (Woodward's synthesis was likely not stereospecific.)
<Chemistry>

4. In their piece *Severed Spots*, this group purchased a Damien Hirst spot painting, cut out each of the individual spots, and sold them as standalone artworks. For 10 points each:
[10h] Name this Brooklyn-based art collective with a fully capitalized five-letter name. It collaborated with Lil Nas X to make modified Nikes with blood in the soles in the piece *Satan Shoes*.
ANSWER: **MSCHF** ("mischief")
[10m] MSCHF created sandals using this French fashion house's Birkin bags, calling the shoes "Birkinstocks." Jean Paul Gaultier ("goh-t'YAY") served as the creative director of this company from 2003 to 2010.
ANSWER: **Hermès** ("er-MESS") [or **Hermès** International S.A.]
[10e] In their piece *Museum of Forgeries*, MSCHF sold 1,000 copies of this American artist's drawing *Fairies*, only one of which was authentic. This Pop artist also created silkscreen paintings of Marilyn Monroe.
ANSWER: Andy **Warhol** [or Andrew **Warhol**a Jr.]
<Other Fine Arts>

5. We have learned a lot about ancient North Arabia by looking at rocks. For 10 points each:
[10e] From the Wadi Rum ("room") to the Hejaz ("heh-JAZZ") and beyond, North Arabia is full of dozens of images and engravings known by term, which are created by carving thin layers from rocks. Their name comes from the Greek for "rock markings."
ANSWER: **petroglyph**s ("petro-gliffs")
[10m] By studying this rock-cut building's reliefs of the Dioscuri ("dee-OSS-kuh-ree") and other deities, we have inferred it was a temple. However, the common name of this building in Petra reflects Bedouin ("BED-oo-win") legends that it housed a pharaoh's jewels.
ANSWER: The **Treasury** [or al-**Khazneh**]
[10h] Scholars use this Arabian people's name to denote diverse, sparsely-attested writing systems found on North Arabian rocks. In the Qur'an, they receive a miraculous camel after demanding that Saleh prove he is a prophet.
ANSWER: **Thamūd** [or **Thamudi** people, or **Thamudite**s, or **Thamudic** people; accept **Thamudic** scripts]
<Ancient History>

6. Answer the following about the role of Mount Qaf ("kahf") in literature, for 10 points each.
[10m] The title group journeys to Mount Qaf to find the Simurgh ("see-MOORG") in this 12ᵗʰ-century poem by Attar of Nishapur.
ANSWER: *The **Conference of the Birds*** [or ***Speech of the Birds***; or ***Mantiq-ut-Tayr***; or ***Maqāmāt-ut-Ṭuyūr***]
[10e] This author used Mount Qaf as inspiration for "Calf Mountain" in *Grimus*, his first novel. This author also created Saleem Sinai, who is born at the moment of India's independence.
ANSWER: Salman **Rushdie** [or Ahmed Salman **Rushdie**]
[10h] In the *Arabian Nights*, Mount Qaf figures prominently in the tale of Buluqiya, who applies magic juice to his feet to cross the Seven Seas to find this mythical object. In "The Fisherman and the Jinni," from *Arabian Nights*, the title jinn was originally trapped in the bottle by this object.
ANSWER: King **Solomon's ring** [or the **Seal of Solomon**; or **Khātam Sulaymān**; accept **signet** instead of ring]
<World Literature>

7. Answer the following about chemo·genetics, the technique of controlling particular populations of genetically modified cells with small molecules, for 10 points each.
[10e] Most receptors used in chemogenetics are the seven-pass trans·membrane receptors coupled to these signaling proteins. These signaling proteins, which are usually trimers ("TRY-mers"), bind to GTP when activated.
ANSWER: **G** proteins [or **GTPase**s ("G-T-P-aces")]
[10h] These are the artificially-created receptors used in chemogenetics. A common one is activated by clozapine ("KLOH-zuh-peen") *N*-oxide, a derivative of the anti·psychotic clozapine.
ANSWER: **DREADD**s ("dredds") [or **designer receptor exclusively activated by designer drug**s; accept **RASSL** or **receptor activated solely by a synthetic ligand**]
[10m] The first DREADDs were derivatives of this receptor. This receptor, which has isoforms labeled M1 to M5, is antagonized by atropine ("AY-troh-peen").
ANSWER: **muscarinic** ("muss-kuh-RIN-ic") acetylcholine ("uh-SEE-tull-KOH-leen") receptor [or **mAChR**; prompt on acetylcholine receptor; reject "nicotinic acetylcholine receptor"]
<Biology>

8. This book's method of "concomitant variation" checks if the magnitude of a later phenomenon tracks with the extent of an earlier one. For 10 points each:
[10h] Name this work that groups concomitant variation with agreement, difference, and residue as the four methods for establishing causation named after the book's author.
ANSWER: *A **System of Logic***
[10e] Mill's *A System of Logic* says these words denote the individuals called by them but do not indicate any attributes of the individuals. Saul Kripke ("KRIP-kee") uses these words as the main examples of "rigid designators."
ANSWER: proper **name**s [reject any other term]
[10m] Decades after helping Mill revise *A System of Logic*, Alexander Bain founded this philosophy journal. Alan Turing introduced the Turing test in an article in this journal during Gilbert Ryle's 25-year tenure as editor-in-chief.
ANSWER: ***Mind***
<Philosophy>

9. This ruler dissuaded George Vancouver from sending an evangelical mission after insisting that he had risen to power because of the great *mana* of the gods he worshipped. For 10 points each:
[10e] Name this ruler who proclaimed the humanitarian "Law of the Splintered Paddle" and unified the politics and legal systems of the Hawaiian islands.
ANSWER: **Kamehameha I** ("kuh-MAY-huh-MAY-huh the-first") [or **Kamehameha** the **Great**; prompt on Kamehameha]
[10h] This favorite wife of Kamehameha, on the other hand, converted to Protestantism and embarked on a campaign of destroying sacred Hawaiian sites and promoting literacy so that Hawaiians could read the Bible.
ANSWER: **Ka'ahumanu** ("kuh-AH-hoo-MAH-noo")
[10m] Ka'ahumanu tried to abolish this traditional Hawaiian religious and legal code, often symbolized by a pair of sticks topped by cloth balls. This system's name is a cognate of the word "taboo."
ANSWER: **kapu** (Proto-Polynesian **t* > Hawaiian *k*; see also H *kalo* "taro.")
<American History>

10. Using a term found in Kant's *Critique of Pure Reason*, this psychologist referred to prototypic concepts in a person's mind as "schemas." For 10 points each:
[10e] Name this Swiss psychologist. His four-stage theory of child cognitive development involves acquiring "object permanence" in the sensorimotor stage.
ANSWER: Jean **Piaget** ("p'yah-ZHAY")
[10m] In Piaget's view, we update schemas in two ways, one that puts a new perception into a pre-existing schema, and another that makes a new schema. Both start with the letter A. Name either.
ANSWER: **assimilation** OR **accommodation**
[10h] Assimilation and accommodation join affirmation, abstraction, and assembly as "Five A's" of this model co-developed by Travis Proulx ("proo"). It posits that people make "compensatory" responses when their beliefs about the significance of things are violated.
ANSWER: **meaning maintenance** model [prompt on MMM]
<Social Science>

11. Eleven biblical psalms, including Psalms 42 through 46, are attributed to the "children of" this man, who "did not die" when he did. For 10 points each:
[10h] Name this former treasurer of the Pharaoh who is burned alive, along with 250 of his followers, after they all place incense in their pans.
ANSWER: **Korah** [or **Korach**]
[10e] The legend of Korah and his rebellion against Moses is found in this Old Testament book, which also features a census, from which this book gets its English name.
ANSWER: Book of **Numbers** [or **Bemidbar**; prompt on Fourth Book of Moses]
[10m] Korah incites his followers to rebel with a parable in which Moses tells one of these people it is forbidden to plow with an ox and ass. In Luke 18, Jesus tells a parable about one of these people and an "unjust judge."
ANSWER: **widow**s [accept Parable of the Importunate **Widow**; prompt on woman or persistent woman]
<Religion>

12. Answer the following about pieces that are quoted in Saint-Saëns's ("san-sawns's") *The Carnival of the Animals*, for 10 points each.
[10e] The main melody of the movement "Tortoises" is an extremely slowed-down version of the cancan from this French composer's comic opera, *Orpheus in the Underworld*.
ANSWER: Jacques **Offenbach** [or Jakob **Offenbach**]
[10m] One of the two lightweight melodies quoted in the "Elephants" movement is the "Ballet des sylphes" ("ballet day SILF") from this Berlioz "dramatic legend," which also includes the "Rakoczy" ("RAH-ko-tsee") March."
ANSWER: La ***damnation de Faust***, Op. 24 [or The ***Damnation of Faust***; reject "Faust"]
[10h] Fittingly, the movement "Hens and Roosters" quotes "La Poule" ("pool") from one of this composer's collections of keyboard suites, which also includes "Les Triolets" ("leh trio-LAY") and "Les Sauvages" ("leh so-VAZH").
ANSWER: Jean-Philippe **Rameau**
<Classical Music>

13. "Fake it until you make it" was a good career strategy for medieval clergy, as many of their forgeries went undetected. For 10 points each:
[10e] This document purported to be a Roman decree that granted control of the Western Empire to Pope Sylvester I ("the-first"). Lorenzo Valla proved that it was forged.
ANSWER: The **Donation of Constantine** [or **Donatio Constantini**]
[10m] A Carolingian-era author purporting to be a merchant of this name forged a number of widely-cited papal decretals ("decree-tulz"). An Iberian clergyman of this name wrote an encyclopedia titled *Etymologiae* ("eh-tih-moh-LOH-gee-eye").
ANSWER: **Isidore** [accept Pseudo-**Isidore**, or **Isidore** the Merchant, or **Isidorus** Mercator, or **Isidore** of Seville, or **Isidorus** Hispalensis]
[10h] A bishop from this city named Pelagius ("puh-LAY-jee-uss") was called the "prince of falsifiers" for how many documents his officials forged. A shroud from this Spanish city was once thought to have been wrapped around Jesus's head but later carbon-dated to the 6th century.
ANSWER: **Oviedo** ("oh-v'YAY-doh") [accept Pelagius of **Oviedo** or Shroud of **Oviedo** or Sudarium of **Oviedo**]
<European History>

14. A poem condemns those who "strive to stamp with disrepute" this substance "because it feeds the brute." For 10 points each:
[10h] Name this substance that is called "Sol's sweet daughter" and "fruitful, rich, well suited to inspire / The purest frenzy of poetic fire" in a mock-heroic poem that opens with the speaker saying that he sings not to "Ye Alps audacious" or to "Ye Gallic flags."
ANSWER: **hasty pudding** [prompt on corn, maize, or cornmeal by asking "What dish is being made with the corn?"]
[10m] This early American author wrote *The Hasty-Pudding* and an epic poem about Christopher Columbus, *The Columbiad*.
ANSWER: Joel **Barlow**
[10e] The speaker tells the title creature to "hurry back to Spain" in Barlow's "Advice to [one of these animals] in Russia." In a poem by a different author, one of these animals perches on a bust of Pallas while the speaker mourns his lost Lenore.
ANSWER: **raven** [accept "Advice to a **Raven** in Russia"; accept "The **Raven**"; prompt on bird or avian]
<American Literature>

15. Answer the following about the Stark effect, in which atomic energy levels are split by an electric field, for 10 points each.
[10e] The Stark Hamiltonian can be solved by separation of variables in the coordinate system named for this conic section. This shape is traced out by a projectile under uniform gravity.
ANSWER: **parabola** [accept **parabolic** coordinates]
[10m] The transformation to parabolic coordinates was first studied in the old quantum theory developed by Niels ("neels") Bohr and this man, in which the action of an orbit must be an integer multiple of Planck's constant.
ANSWER: Arnold **Sommerfeld** [accept Bohr–**Sommerfeld** quantization]
[10h] Consider the states with principal quantum number 2, and ignore spin. The first-order Stark effect shifts these *two* states, since they are coupled together by an electric field in the z direction, as required by the dipole selection rule.
ANSWER: 2**s** AND 2**p** ("P-Z") [accept answers in either order; accept 2**00** ("(two-)zero-zero") AND 2**10** ("(two-)one-zero"); accept "**L equals 0**, *m* equals 0" AND "**L equals 1, *m* equals 0**"; reject "*s* and *p*"]
<Physics>

16. An artist from this country created a series of Pop-influenced paintings that adapted a photo of a young couple taken shortly before they threw themselves off a dam. For 10 points each:
[10h] Name this home country of that artist of *The Sisga* ("SEEZ-gah") *Suicides*, Beatriz González. Another artist from here, Doris Salcedo, created a long crack along the floor of the Tate Modern's Turbine Hall for her work *Shibboleth*.
ANSWER: **Colombia** [or Republic of **Colombia**]
[10m] In *Anonymous Auras*, González filled 8,957 niches in the walls of Bogotá's Central Cemetery with images in this style. In panoramic friezes like *Darkytown Rebellion*, Kara Walker rendered her figures in this style.
ANSWER: **silhouette** [prompt on cut-outs]
[10e] González often applied enamel to furniture, including a coat rack whose mirror she replaced with a version of this painting. Marcel Duchamp parodied this painting by adding a mustache in *L.H.O.O.Q.*
ANSWER: *Mona Lisa* [or La *Gioconda*]
<Painting/Sculpture>

17. In the romance of Khosrow II ("kuss-ROH the-second") and his Armenian wife Shirin, the young prince's courtiers and the princess's attendants participate in this activity during their courtship. For 10 points each:
[10h] Name this activity, historically known as *chogan* ("cho-GAN") in Iran and Central Asia, from which it spread to Byzantium, the Levant, India, and China. It was purportedly the favorite pastime of Saladin.
ANSWER: **polo** [or **polo** field; accept **tzykanion**; prompt on sports; prompt on riding horses or equestrian sports or equivalents]
[10e] Nobles of this Chinese dynasty often used polo matches as opportunities to murder their political rivals. This dynasty, whose emperor Muzong died in a polo accident, also faced the An Lushan rebellion.
ANSWER: **Tang** dynasty
[10m] This expert polo player invented an illuminated polo ball and a wheel that could quickly clean sixteen matchlock barrels, according to the vizier Abu'l Faḍl ("ah-BOOL fuzzle"), who was of this ruler's "Nine Jewels."
ANSWER: **Akbar** the Great [or Jalaluddin Muhammad **Akbar**]
<World History>

18. Terry Eagleton accused this English literary critic of "linking a defective utilitarian theory of value to an essentially aestheticist view of human experience." For 10 points each:
[10m] Name this early advocate of "close reading" who wrote 1929's *Practical Criticism* and co-wrote *The Meaning of Meaning* with C. K. Ogden.
ANSWER: I(vor) A(rmstrong) **Richards**
[10e] Eagleton controversially called this author of *Lucky Jim* "a drink-sodden, self-hating reviler of women, gays and liberals," during a feud with his son Martin.
ANSWER: Kingsley (William) **Amis**
[10h] Eagleton wrote, "It is one of the minor symptoms of the mental decline of the United States that" this literary critic "is thought to be on the Left" in his review of this author's book *The Trouble with Principle*. He was fictionalized as Morris Zapp in David Lodge's *Campus Trilogy*.
ANSWER: Stanley (Eugene) **Fish**
<British Literature>

19. Donald Shoup ("shoop"), a social scientist at UCLA, rails against providing this amenity free of charge on his website ShoupDogg.com. For 10 points each:
[10m] Identify this amenity. A building dedicated to providing this amenity on Cordova Street, in Vancouver's Gastown neighborhood, has a blue spiral and pieces of old bridges built into it.
ANSWER: car **parking** [accept **parking** lots or car **parks**; or **park**ades (the Canadian term); accept Cordova **Parkade**]
[10e] The world's biggest parking lot is by a mall in this Canadian city. In 2020, citing Shoup's work, this provincial capital of Alberta ended laws requiring parking on new real estate.
ANSWER: **Edmonton**, Alberta
[10h] Further east, parking is banned within a Toronto district named for this type of industrial facility, east of Old Town. The largest of these facilities in North America is found in Windsor, Ontario, as is the Wolfshead one.
ANSWER: whiskey **distillery** [or brandy **distillery**; accept **Distillery** District; prompt on factory; prompt on answers referring to alcohol or booze production]
<Geography>

20. Jean-Louis Deneubourg's ("duh-nuh-BOORG's") double-bridge experiments inspired this technique, which solves problems that can be converted to a shortest path problem on a weighted graph. For 10 points each:
[10h] Name this meta·heuristic proposed by Marco Dorigo, in which agents assign pheromone values to previously-visited edges. It is named by analogy to a specific biological system.
ANSWER: **ant colony** optimization [prompt on ACO]
[10m] Algorithms like ant colony optimization try to replicate the "intelligence" of self-organized animal behavior known by this word. This word also describes robotic systems made of many simple, autonomous units.
ANSWER: **swarm** [accept **swarm** intelligence or **swarm** behavior or **swarming** or **swarm** robotics; prompt on flocking or herding or schooling]
[10e] Ant colony optimization is commonly used to solve this NP-hard problem, which seeks to find the shortest path through a weighted graph that visits each vertex exactly once.
ANSWER: **traveling salesperson** problem [or **traveling salesman** problem; or **traveling saleswoman** problem; or **TSP**]
<Misc. Science>