

2021 ACF Regionals

Packet M by Bowdoin, Carleton College A, Glasgow A, UGA A, Ohio State A

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Tossups

1. While returning from Hajj, Baba Budan legendarily used monkey dung to smuggle this good into India's Karnataka state, where it is still produced today. The Hakimani brothers were bribed by Kha'ir Beg ("kha-EER bayg") to support a 1511 ban on this good in Mecca that was later overturned by the Sultan of Cairo. Anger at the Cultivation System's treatment of workers producing this good led Multatuli to write *Max Havelaar*. Muhammad al-Dhabhani first suggested using this good as a replacement for *khat*, while the Ethiopian goatherd Kaldi discovered this good's Arabica variety while feeding it to his animals. This good was the primary export of the Yemeni city of al-Makha. For 10 points, Sufis started the practice of drinking what stimulant to keep themselves awake for prayer?

ANSWER: **coffee** [or **kaffe**; or **qahwah**; or **kahve**; accept **qishr**]

<Other History>

2. This dialogue's "Digression" introduced the story of Thales ("THAY-leez") falling into a well while looking at the stars, and was interpreted by Myles Burnyeat with "Reading B" in his book-length introduction to Mary Jane Levett's translation of this dialogue. The "peritropè," or "table-turning," argument from this dialogue claims that Protagoras's relativism is self-refuting. After rejecting the Heraclitean implications of defining a concept as "perception," this dialogue considers the metaphor of a wax block and compares arithmetic errors to grabbing the wrong bird from an aviary. Socrates compares himself to a midwife birthing "wind eggs" in this dialogue. Edmund Gettier ("GETTY-er") traced a three-part definition to this dialogue and the *Meno* in his article on "Justified True Belief." For 10 points, name this Platonic dialogue about knowledge.

ANSWER: ***Theaetetus*** ("thee-uh-TEE-tuss")

<Philosophy>

3. The protagonist of this novel improvises the descriptions "snowy breasts fitting into champagne glasses" and "thighs like a wild mare" when asked to recall the last time he slept with a woman. In this novel, the protagonist nearly stamps out a cigarette, but decides to put it out on the back of his hand for exactly half a minute. In a flashback set near a version of the *Pietà* in an art museum, this novel's protagonist betrays a young man named Richard to the secret police. This novel ends with a "Grammatical Fiction" after three sections called "hearings," in which its main character communicates via code with No. 402 and is accused of crimes against "Number One," a stand-in for Joseph Stalin. For 10 points, Rubashov is imprisoned and executed in what novel by Arthur Koestler ("KESS-ler")?

ANSWER: ***Darkness at Noon*** [or ***Sonnenfinsternis***]

<European Literature>

4. This leader partnered with Fiat to set up a car factory in Tolyatti to build the iconic VAZ-2106. The only remaining statue of this leader is in Novorossiysk ("NO-vo-ruh-SEESK"), where he set the first of a trilogy of highly-propagandized memoirs. Jokes claiming that this leader needed "chest expansion surgery" to fit more gold medals made fun of his notoriously poor health. This leader's sidelining of Alexei Kosygin and subsequent renouncement of economic reform led his successors to call his time in power *zastoi*, or an "era of stagnation." This leader justified conducting Operation Danube using his namesake doctrine, giving the Soviet Union unilateral authority to intervene in Warsaw Pact states. For 10 points, name this Soviet premier who crushed the Prague Spring and succeeded Nikita Khrushchev.

ANSWER: Leonid **Brezhnev** [or Leonid Ilyich **Brezhnev**]

<European History>

5. A reporter investigates a criminal group named for these creatures in a film by Louis Feuillade (“foy-AHD”), which a director attempts to remake with Maggie Cheung in the lead role in a film by Olivier Assayas (“oh-leev-YAY ah-sah-YAHS”). A man dreams that he sees his own dead body in a coffin, before a corpse-eye view of its procession to the grave, in a 1932 film titled for one of these creatures. The shadow of one of these creatures ascends a staircase in a famous scene from a film that Werner Herzog remade with Klaus Kinski in the lead role. One of these creatures played by Max Schreck orchestrates a rat-fueled plague in that “Symphony of Horror” directed by F. W. Murnau. For 10 points, the film *Nosferatu* features what type of creature, which Bela Lugosi played in an adaptation of a Bram Stoker novel?

ANSWER: **vampire** [accept **Vampyr**; accept **nosferatu** until read; prompt on Count **Dracula** by asking “what kind of creature?”] (The 1932 film is Carl Theodor Dreyer’s *Vampyr*, and the Assayas film is titled *Irma Vep*, which is an anagram of “vampire.”)

<Other Arts (Visual)>

6. IntCal20 is a calibration curve for one type of this process. Orbital tuning is sometimes used to perform this task on data collected by the IODP. It’s not related to medicine, but optically stimulated luminescence can aid in this task. Accelerator mass spectrometry can be used for one variety of this process in which the effects of fossil fuel burning must be accounted for. A superlattice held by zircons from the Jack Hills was discovered by performing this process. The relative form of this process uses the law of cross-cutting relationships and the law of superposition. Tephra layers can be used to perform this process in ice cores. For 10 points, name this analysis that is often accomplished by measuring the carbon-14 in a sample and performing calculations based on half-life.

ANSWER: **dating** [or **geochronology**; accept radiometric **dating** or radiocarbon **dating** or radioisotope **dating** or radioactive **dating**; accept uranium–lead **dating** or lead–lead **dating**; accept relative **dating** or absolute **dating**; accept **dating** geological/archeological samples or rocks or equivalents; accept finding an **age model** or **finding the age** of things; prompt on **measuring isotopes** or equivalents by asking “what is the goal of that analysis?”; prompt on “**studying past** environmental conditions” or equivalents by asking “what specific step of that study is being described?”] (The Jack Hills zircons are the oldest materials on Earth.)

<Other Science (Earth Science)>

7. Anand Bodas gave a controversial 2015 presentation on these objects, citing the Vaimānika Śāstra. Claude Vorilhon (“vo-ree-YON”) adopted the symbol of a swastika inscribed in a six-pointed star after seeing one of these objects in the Puy de Lassolas volcano, and subsequently changed his name to Raël (“ra-EL”). Elijah Muhammad claimed that a giant steel example of these objects was constructed in Japan, and the sarcophagus of Pakal depicts these objects, according to Erich von Däniken. Louis Farrakhan argued that Ezekiel saw one of these objects when he observed a fiery wheel in the sky. The members of Heaven’s Gate committed suicide because they believed their souls would be transported onto one of these objects behind Comet Hale–Bopp. For 10 points, name these extraterrestrial spacecraft.

ANSWER: **UFOs** [accept **aircraft** or equivalents until “Vorilhon” is read; accept Mother **Wheel** until read; accept **Mother Plane** or descriptions of a **man-made planet**; accept **flying saucer** or **unidentified flying objects**; accept alien **spaceship** or **spacecraft** until “spacecraft” is read]

<CE/Geo/Other/Pop Culture>

8. In a novel, a woman sings a song comparing love to this stuff after the line “Hug me, honey, snuggly bunny.” A man feels maggots “crawling across his grief and repentance” when he sees a “khaki mob” of hospital workers rush toward this stuff. A character justifies this stuff by noting its rise in popularity after Ireland shortened its workday. At an event centered on this stuff, characters pass around a bowl of strawberry ice cream while singing a “Solidarity Hymn.” A novel’s final line lists the cardinal directions that a man’s feet point towards after he hangs himself over his use of this stuff in an orgy. Linda and Lenina Crowne often go on “holidays” named for this stuff, which is the

subject of the saying “a gramme is better than a damn.” For 10 points, name this pleasure-inducing drug from *Brave New World*.

ANSWER: **soma** [prompt on drugs or hallucinogens]
<British Literature>

9. In a Mexican superstition, during these events, pregnant women wear red underwear and a safety pin to protect their unborn children. The Aztecs believed that the Tzitzimimeh (“TSEE-tsee-mee-meh”) descended to devour humans during these events. The Fon of Benin believe that these events occur when Mawu and Lisa have sex. In Hindu stories, Rahu’s severed head is responsible for a form of these events. The Choctaw blame these events on a black squirrel and, to scare off the attacker, make loud noises. The Inca believed that the red color of an object central to one type of these events results from a jaguar attack. Sköll and Hati may cause these events if they catch up to their quarries. Dogs bite the sun and moon during, for 10 points, what cosmological events?

ANSWER: **eclipses** [accept solar **eclipses** or lunar **eclipses**; accept times of **darkness** or eternal **night** or the **end of a 52-year cycle** until “Fon” is read; accept **full moon** until “Tzitzimimeh” is read] (The first clue is said to derive from an Aztec practice of wearing an obsidian blade tied with a red string over the pregnant woman’s belly. The last clue is about Korean Bul-Gae.)
<Mythology>

10. This law is derived from the equipartition theorem and the holographic principle in Erik Verlinde’s entropic theory. Each large extra dimension increases a power in this law by 1, while small extra dimensions leave that power fixed but change the Planck mass. In one theory, this law’s denominator is rescaled by an interpolating function that drops out at large acceleration. Under linearized perturbations, this law is recovered from the diagonal terms of the metric tensor. The constant in this law is 10-to-the-24th times smaller than the Fermi constant of the weak force, a fact known as the hierarchy problem. Inertial mass equals the mass in this law according to the equivalence principle. For 10 points, a 17th-century Englishman proposed what law that gives an inverse-square attraction between bodies with mass?

ANSWER: **Newton**’s law of universal **gravitation** [or **Newton**’s law of **gravity**; prompt on **Newton**’s law; prompt on **gravity**; do not accept or prompt on “Newton’s first law” or “Newton’s second law” or “Newton’s third law”]
<Physics>

11. These objects were held in red cases by flamboyant cross-dressing gangs known as “the crazy ones.” These objects can have shaded patterns known as *hamon* (“ha-moan”). A famous fashioner of these objects allegedly discovered his signature technique after knocking asthma medication into a mixture intended for these objects. That powder was composed of molybdenum (“muh-LIB-duh-num”) and led Masamune (“ma-SA-moo-neh”) to develop the seven-layer method for making these objects. Thousands of these objects were melted down to create rivets for a Buddha statue after Toyotomi Hideyoshi led a kingdom-wide hunt for these objects, which were banned during the Meiji Restoration to limit the privileges of samurai. For 10 points, identify these objects, which include wakizashis and katanas.

ANSWER: **swords** [accept **katanas** or **wakizashis** until read; accept **odachis** or **tsuruga** or **tachis**; prompt on **weapons**] (The first clue refers to *kabukimono*, the inspiration for the theater style *kabuki*.)
<World History>

12. The now-lost “Spring of Khosrow” was one of these objects, whose aerial-view garden variants are split into four quadrants. The Czartoryski (“char-toh-RISK-ee”) coat of arms appears on gold- and silver-embellished “Polonaise” examples of these objects. Elaborate crosses appear between Gospels on pages named for these things in illuminated manuscripts. An indigo pair of these objects features a ring of pointed ovals and a pair of lamps emanating from a central medallion and were created at Ardabil. A popular variety of these objects was named for Hans Holbein due to their inclusion in his paintings, such as *The Ambassadors*. *Kilim* examples of these objects lack

piles that result from the cut-off ends of knots. For 10 points, give these decorative textiles found on mosque floors during prayers.

ANSWER: **carpets** [or (prayer) **rugs**; accept **carpet** pages]

<Painting/Sculpture>

13. Two characters in this novel who love the word “cuff-links” hear stories about the Earth Woman and look up the word “Anglophile” in a dictionary with their uncle, a Rhodes scholar. One of those characters in this novel meets Lenin during her visit to Dr. Verghese Verghese (“vur-GEESE vur-GEESE”) to remove a glass bead from her nose. A woman in this novel watches television with her servant and suffers from unrequited love for the Irish priest Father Mulligan; that character is forced to wave a flag and say “Inquilab Zindabad” while trapped in a car on her way to see *The Sound of Music*. Another character in this novel becomes mute after being molested by the Orangedrink Lemondrink Man. For 10 points, name this novel about the incestuous twins Rahel and Estha, written by Arundhati Roy.

ANSWER: *The **God of Small Things***

<World/Other Literature>

14. High levels of the avoidance-related serotonin metabolite 5-HIAA in both this condition and anorexia nervosa support Palmer and Jones’s early assertion that anorexia may be a form of this condition. Resistance against and control over one primary symptom of this condition are both assessed on the Yale–Brown scale. Unlike a similarly-named personality disorder, this condition is ego-dystonic. Clomipramine with either decoupling or exposure and response prevention therapy treats this condition. A four-factor grouping of this condition consists of symmetry, forbidden thoughts, cleaning, and hoarding symptoms. Manifestations of this condition include skin-picking and hand-washing. For 10 points, name this psychiatric condition that causes people to perform rituals to stave off anxiety caused by repeated intrusive thoughts.

ANSWER: **obsessive-compulsive disorder** [or **OCD**; do not accept or prompt on “obsessive-compulsive personality disorder” or “OCPD”]

<Social Science>

15. This phenomenon is enabled in members of genus *Utricularia* by an osmotic pressure-driven vacuum bladder. Wax crystals and lunate cells contribute to anisotropic (“AN-iso-tropic”) superhydrophobicity of the slippery zone of some plants that display this phenomenon. This phenomenon has evolved nine separate times among flowering plants, and it requires co-opting chitinases (“KITE-in-ases”). Thomas Givnish’s cost-benefit model explains why this ability is only found in sunny, moist areas with soil that lacks nitrogen and phosphorus. Acid growth enables a rapid “snapping” movement to facilitate this ability upon two contacts with “trigger hairs.” For 10 points, name this ability of sundews, pitcher plants, and Venus flytraps, which catch and digest animals for nutrients.

ANSWER: **carnivory** [or word forms like **carnivore** or **carnivorous** plants; prompt on **meat-eating** or **eating animals** or equivalents; prompt on **moving** plants or equivalents by asking “they move in order to do what?”]

<Biology>

16. Edward Roybal was elected to this city’s council with multi-ethnic support from its Boyle Heights neighborhood. Land seized from residents of this city to build Elysian Park Heights was later used for a baseball stadium. Clarence Darrow defended the ironworkers J. J. and J. B. McNamara for dynamiting a building in this city owned by Harrison Otis, who bought up land in this city with Harry Chandler. The “Battle of Chavez Ravine” took place in this city, where the collapse of the St. Francis Dam ended the career of a man who worked with Frederick Eaton to divert water from Owens Valley. William Mulholland’s aqueduct accelerated this city’s development but started “water wars” in the San Fernando Valley. The neighborhood of Watts is found in, for 10 points, what largest city in California?

ANSWER: **Los Angeles** [or **L.A.**]

<American History>

17. Near the end of one work by this composer, trumpets play the slow *tenuto* notes “F, F, F, long F, down to C,” harmonized by the brass section against skittering string triplets. At that work’s premiere, one critic wrote that the audience was disappointed after being served “agitated water in a saucer.” A piano piece by this composer opens with a soft F–A-flat third that is repeated an octave higher, in a suite with a “Menuet” and a “Passepied” (“pahss-pee-AY”). A voiceless choir depicts mythical sirens in the third movement of an orchestral piece by this composer titled *Nocturnes*. This composer alluded to *Gradus ad Parnassum* in his *Children’s Corner* suite, which also includes “Golliwog’s Cakewalk.” For 10 points, name this French composer who wrote *La Mer* and included “Clair de Lune” in his *Suite Bergamasque*.

ANSWER: Claude **Debussy**

<Classical Music>

18. Drogön Chögyal Pakpa composed a guide to a 37-point offering with these objects to accumulate merit. In the Shingon Buddhist *abhiṣeka* (“ah-bee-SHAY-kuh”), a blindfolded initiate throws a flower onto one of these objects. One of these objects represents a five-storied palace, with the Kālacakra Deity at the center. It’s not a mountain, but the Buddhist temple Borobudur has been interpreted as one of these objects, which often depict stylized fire around their perimeters and Mount Meru at their centers. Esoteric schools of Buddhism pair these visual objects with *mudras* and *mantras*. In an expression of impermanence, these objects are ritually dismantled after their creation with colored sand by Tibetan monks. For 10 points, concentric geometric patterns represent the universe in what circular Buddhist artworks?

ANSWER: **mandala** [accept **kyil khor**; accept **Mandala** of the Two Realms; prompt on Wheel of Time by asking “what general type of object is it?”]

<Religion>

19. This character “got in the habit of being quiet” because another woman “never did give [her] a chance to say much.” This character’s love-making is described as “getting the colored lights going,” and she is “sort of thrilled” when her husband breaks lightbulbs with a slipper on their wedding night. While searching through a chest of fake jewelry, a man who talks about the Napoleonic Code says that this woman has been “swindled” by a schoolteacher who was fired from her job as an English teacher after an affair with an underage boy. This pregnant woman is beaten after a poker game, and she cries after her sister says “I have always depended on the kindness of strangers.” For 10 points, name this sister of Blanche DuBois from *A Streetcar Named Desire*, whose name is yelled by her husband Stanley Kowalski.

ANSWER: **Stella** Kowalski [or **Stella** DuBois; prompt on DuBois or Kowalski]

<American Literature>

20. Sites for consumption and production of these compounds are connected by a 35-angstrom pathway in a PCET (“P-C-E-T”)-mediated process whose study won JoAnne Stubbe the 2020 Priestley Medal. A technique for probing these compounds with microwaves plots both absorbance and its derivative against magnetic field. The mechanism of ribonucleotide (“ribo-nucleo-tide”) reductase begins by producing one of these compounds called tyrosyl (“ty-ro-sil”). Persistent examples of these compounds, such as Frémy’s salt and TEMPO, act as standards or probes in electron spin resonance spectroscopy. Reactions form these compounds via homolytic cleavage in an initiation step, which is followed by propagation and elimination steps. For 10 points, name these highly reactive compounds that have an unpaired valence electron.

ANSWER: free **radicals**

<Chemistry>

Bonuses

1. A “Complaint” to God about the plight of Muslims in this language was followed up with a “Reply” from God’s perspective in poems by Muhammad Iqbal. For 10 points each:

[10e] Name this language. Iqbal Bano was a famous singer of Faiz Ahmad Faiz’s protest poem “We Will See” and other *nazms* in this national language of Pakistan.

ANSWER: **Urdu** [prompt on Hindustani or Hindi-Urdu; do not accept or prompt on “Hindi”] (The poems are “Shikwa,” “Jawab-e-Shikwa,” and “Hum Dekhenge.”)

[10m] Iqbal Bano was known for singing in this Persianate poetic form, as was Begum Akhtar, the “Queen” of this genre. Akhtar inspired Agha Shahid Ali, who wrote poems in this form containing couplets with rhyming *radifs*.

ANSWER: **ghazals** (“guzzles”)

[10h] Jagjit Singh notably sang many of this poet’s Urdu ghazals. This rival of Zauq once quipped that he was “only half-Muslim,” and asked, “Who can beat a poet whose ghazals are sung by courtesans and *fakirs* in the streets?”

ANSWER: Mirza **Ghalib** [or Mirza **Asadullah Baig Khan**] (According to Ghalib, being half-Muslim entails drinking alcohol but not eating pork.)

<World/Other Literature>

2. The first attested use of this technique is by Mikhail Tsvet, who poured a petroleum solution of plant pigments into a tube of ground chalk and watched it trickle down. For 10 points each:

[10e] Name this class of techniques that separate mixtures by passing a mobile phase over a stationary phase. A column is used in its “high-performance liquid” type.

ANSWER: **chromatography** [accept column **chromatography** or liquid **chromatography** or high-performance liquid **chromatography**; prompt on HPLC]

[10m] This type of liquid chromatography separates mixtures by hydrophobicity. Unlike older approaches, it uses an aqueous mobile phase and a nonpolar stationary phase, such as silica coated with 18-carbon chains.

ANSWER: **reversed-phase chromatography** [or **reverse-phase chromatography**; prompt on RPC]

[10h] RPC separates these two compounds, since one has a hydroxyl group where the other has an ether. Strong acid cyclizes the non-intoxicating first one of these two compounds to produce the potent delta-9 form of the other.

ANSWER: **CBD** AND **THC** [accept **cannabidiol** in place of “CBD”; accept delta-9-**tetrahydrocannabinol** in place of “THC”]

<Chemistry>

3. This man saved Alexander the Great’s life at Granicus River when he killed the satrap Spithridates (“spith-rid-DAY-teez”), who was about to strike Alexander. For 10 points each:

[10h] Name this Macedonian, whom Alexander later impulsively killed after they quarreled at a symposium at Maracanda. He is called “the Black” to distinguish him from a homonymous Macedonian known as “the White.”

ANSWER: **Cleitus** the Black [or **Clitus** the Black]

[10m] After Philotas was executed, Cleitus became the joint leader of this elite force, Alexander’s shock cavalry, with Hephaestion. This force was divided into *ilai*, one of which served as a royal squadron led by Alexander.

ANSWER: **Companion** Cavalry [or **hetairoi**; or **Companions**; do not accept or prompt on “Companion Infantry”]

[10e] Arrian suggests that the drunk Cleitus belittled the achievements of Alexander and praised those of this man, Alexander’s father. This man was killed by his bodyguard Pausanias shortly before his planned invasion of Persia.

ANSWER: **Philip II** of Macedon [or **Philip of Macedon**; prompt on Philip]

<Other History>

4. J. S. Bach wrote many pieces for solo keyboard. For 10 points each:

[10h] Bach’s suites for solo keyboard are commonly grouped into several named sets. Name any two of those sets.

ANSWER: **French Suites** OR **English Suites** OR **Partitas** [accept answers like **Partitas for keyboard** or **Partitas for harpsichord** in place of “Partitas”]

[10m] This three-movement piece for two-manual harpsichord [emphasize] *does not* have orchestral accompaniment, despite its name. This F major piece was paired with a “French Overture” in the second book of *Clavier-Übung*.

ANSWER: ***Italian Concerto*** [or ***Concerto nach Italienischen Gusto***; or ***Concerto in the Italian Taste***; or **BWV 971**]

[10e] Another solo harpsichord work by Bach is a long piece in this form that begins with an “Aria” movement. That 31-movement work in this musical form is named for “Goldberg.”

ANSWER: theme and **variations** [accept *Goldberg Variations*]

<Classical Music>

5. Campaign finance reform advocates have attempted to convince the Supreme Court to expand their definition of this practice. For 10 points each:

[10e] Name this practice. Justice Roberts only recognized the “quid-pro-quo” variety of it in his opinion in *McCutcheon v. FEC*, but more generally, this term refers to abuse of power or public office for private gain.

ANSWER: **corruption** [prompt on **bribery**]

[10h] Advocates of campaign finance reform decry this practice of allowing unlimited donations to political committees. The McCain–Feingold Act banned these donations, but the *McCutcheon* decision reinstated them.

ANSWER: **soft money**

[10m] Seattle adopted a method of campaign finance reform that uses these items, which can be redeemed for public funds. The Seattle Ethics and Elections committee will mail voters four of these items for every city election cycle.

ANSWER: campaign finance **vouchers**

<Social Science>

6. Census rolls in China shrank by two-thirds after this conflict, leading some historians to conclude that it resulted in the death of 36 million people. For 10 points each:

[10m] Name this conflict against the Emperor Xuanzong (“shwen-dzong”). It was blamed on the family of Yang Guifei (“yong gway-fay”), who was put to death during it.

ANSWER: **An Lushan** Rebellion [or **An-Shi** Rebellion; or **An-Shi** Disturbances; or **Tianbao** Rebellion]

[10h] Following the Tang dynasty, the census was conducted using this system, which divided areas into units of 10 and 100 households. It was officially implemented by Wang Anshi, who sought to strengthen local militias with it.

ANSWER: **baojia** system [or **pao-chia** system]

[10e] The *baojia* system was revitalized by this dynasty’s Kangxi emperor, who instead used it to suppress the local population. This dynasty was established in 1644 by Manchus invading the Ming dynasty.

ANSWER: **Qing** dynasty

<World History>

7. The protagonist of this work believes her “old cells” will be “distant, foggy memories” after she completes this novel’s title activity with a litany of substances like “Neuroproxin, Maxiphenphen, Valdignore.” For 10 points each:

[10h] Name this novel by Ottessa Moshfegh whose protagonist strives to sleep as much as possible with the assistance of the quack Dr. Tuttle and the artist Ping Xi after she is fired from her gallery job.

ANSWER: ***My Year of Rest and Relaxation***

[10e] In *My Year of Rest and Relaxation*, the narrator’s former roommate at Columbia dies in this event, which is depicted in *Falling Man* and *Extremely Loud and Incredibly Close*.

ANSWER: **9/11** [or **September 11**, 2001 attacks; or **World Trade Center** attacks; or equivalent]

[10m] This author wrote about the title performance artist re-enacting a scene from 9/11 in *Falling Man*. In another novel by this author, Babette takes the drug Dylar to avoid the fear of death.

ANSWER: Don **DeLillo** (The novel is *White Noise*.)

<American Literature>

8. One of these items from J. L. Austin's "A Plea For Excuses" differentiates between shooting a donkey "by mistake" and "by accident." For 10 points each:

[10e] Alfred North Whitehead claimed that Western philosophy "consists of a series of" what items to Plato? Unlike their "end" counterparts, these addendums common in academic papers are printed at the bottom of the page.

ANSWER: **footnotes** [prompt on notes]

[10h] A thinker from this country used the infamous footnote "This was once revealed to me in a dream." Another thinker from this country argued that the "religious perception" of an age determines aesthetic value in *What is Art?*

ANSWER: **Russia** (Those thinkers are Nikolai Berdyaev and Leo Tolstoy.)

[10m] The author imagines a "tiny image" of the Mona Lisa in his brain in a footnote of this essay, whose footnote 11 is an influential reply to Kripke. This Thomas Nagel essay discusses consciousness and the mind-body problem.

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

<Philosophy>

9. The risk of one of these conditions, which is treated with a blood patch, can be reduced by using atraumatic pencil point needles instead of cutting needles. For 10 points each:

[10m] Name these conditions that can come in "cluster" varieties. "Searing" conditions of this kind can follow spinal anaesthesia or lumbar punctures because the puncture causes a CSF leak, lowering intracranial pressure.

ANSWER: **headaches** [accept post-dural-puncture **headaches**; or **PDPH**; prompt on head pain; do not accept or prompt on "migraines"]

[10e] Lumbar punctures can help diagnose this condition, an inflammation of the brain's protective layer consisting of the dura, pia, and arachnoid mater. *Cryptococcus* and *Neisseria* are common causes of this condition.

ANSWER: **meningitis** [accept fungal **meningitis** or bacterial **meningitis**]

[10h] Post-dural-puncture headaches may present with this symptom, also characteristic of meningitis. A positive Brudzinski's sign results from this symptom in meningitis patients.

ANSWER: **stiff neck** [or **nuchal rigidity**; or word forms like **neck stiffness**; prompt on stiffness or rigidity]

<Biology>

10. *The Rubaiyat of Dorothy Ashby* is a jazz album featuring this instrument, which Ashby also played for *Songs in the Key of Life*. For 10 points each:

[10h] Name this instrument played by another woman as bandleader on albums such as *Journey in Satchidananda* and *World Galaxy*.

ANSWER: **harp**

[10m] *World Galaxy* is an album by this musician, who played on songs such as "Naima" after replacing McCoy Tyner as pianist in her husband's quintet.

ANSWER: **Alice Coltrane** [prompt on Coltrane; accept **Alice Hagood**; or Alice **McLeod**; or **Turiyasangitananda**]

[10e] Alice and John Coltrane traveled to this country on their last tour before John's death. *The Rubaiyat of Dorothy Ashby* features the koto, an instrument from this country home to jazz pianists Ryo Fukui and Hiromi.

ANSWER: **Japan** [or **Nippon**]

<Other Arts (Auditory)>

11. In this poem, a man is told not to "degrade yourself with empty hopes" and to "listen to the exquisite music of that strange procession." For 10 points each:

[10h] Name this poem based on a story from Plutarch's *Lives* that ends "say goodbye to her, to the Alexandria you are losing."

ANSWER: "The **God Abandons Antony**"

[10m] This author of "The God Abandons Antony" wrote a poem that asks "What are we waiting for, assembled in the forum?" and "Why are the senators sitting there without legislating?"

ANSWER: Constantine Peter **Cavafy** [or Konstantinos Petrou **Kavafis**] (The poem is "Waiting for the Barbarians.")

[10e] Cavafy writes “hope your road is a long one” in “Ithaka,” a poem referencing this man. A poem by Tennyson named for this hero ends “To strive, to seek, to find, and not to yield.”

ANSWER: **Ulysses** [or **Odysseus**]

<European Literature>

12. The death of a 40-year-old veteran by a paramilitary squad sparked riots in this country in July 1927. For 10 points each:

[10h] Name this country whose politics following World War I were split between its Social Democratic Party and the Christian Social Party. Following a civil war in this country, the Fatherland Front established one-party rule.

ANSWER: **Austria** [accept First **Austrian** Republic; accept Federal State of **Austria**]

[10e] Despite being fascists, the Fatherland Front sought to prevent this event, the absorption of Austria into the Third Reich. Following this 1938 event, Kurt Schuschnigg (“SHOOSH-nig”) resigned as Austrian chancellor.

ANSWER: **Anschluss**

[10m] This person refused to confirm Karl Lueger, founder of the Christian Social Party, as mayor of Vienna until Leo XIII intervened. This man’s only son committed suicide with his lover in the Mayerling Incident.

ANSWER: **Franz Joseph I** [prompt on **Franz Joseph**]

<European History>

13. Answer the following about *shathiyat*, or divinely inspired – but often heretical – ecstatic utterances manifested by some Sufi mystics, for 10 points each.

[10h] The most famous *shath* ever uttered was one in which Mansur al-Hallaj claimed to be this concept, leading to his execution. This concept also names a form of love contrasted with *ishq-e-majāzi*.

ANSWER: the **truth** [accept **true** love or **real love**; accept “Ana’l-**Haqq**” (the original *shath* in Arabic); accept *ishq-e-haqeeqi*]

[10m] al-Hallaj influenced one jurist of this surname whose own teachings on love mirror al-Hallaj’s. That man’s more famous brother also admired al-Hallaj despite frowning both on his *shath* and Ibn Sina’s Aristotelian *falsafa*.

ANSWER: **Ghazali** [accept (Majd al-Dīn Abū al-Fotuh) Ahmad **Ghazālī** or (Abū Hāmid Muhammad ibn Muhammad at-Tūsiyy) **al-Ghazālī**]

[10e] The *shathiyat* can be considered a part of the “hidden knowledge” only accessible to select people, such as this nephew of Muhammad, whom he called the “gate to the city of knowledge.” This man is also the first Shia imam.

ANSWER: **Ali** ibn abi Talib

<Religion>

14. Fourier’s law can be used to derive this equation, which Fourier himself first studied in order to determine the optimal depth of a wine cellar. For 10 points each:

[10m] Name this parabolic partial differential equation, whose diffusivity coefficient relates the time derivative and Laplacian of a variable usually denoted *u*. It has the same form as Fick’s second law for diffusion.

ANSWER: **heat** equation

[10e] The flow of heat from warmer to colder bodies is consistent with the Clausius statement of this law, which more generally states that the entropy of the universe tends to increase.

ANSWER: **second** law of **thermodynamics** [prompt on partial answer]

[10h] Onsager’s reciprocal relations link heat fluxes to density gradients via a matrix of coefficients named for this process. This process also names an equation derived by assuming Stosszahlansatz (“SHTOSS-zahl-ON-zotts”), or molecular chaos.

ANSWER: **transport** [accept **transport** coefficients or Boltzmann **transport** equation]

<Physics>

15. Instruments used in this discipline in the 1700s included the theodolite and the plumb bob. For 10 points each:

[10e] Name this discipline used to measure distances on land, which was used to define the Mason–Dixon line.

ANSWER: **surveying** [or word forms like **surveyors**; prompt on answers like **cartography** or **map-making** by asking “what discipline did they use to make maps?”]

[10m] This African-American surveyor worked with Andrew Ellicot to establish the borders of Washington, D.C. This astronomer published several almanacs and wrote a letter criticizing Thomas Jefferson for supporting slavery.

ANSWER: Benjamin **Banneker**

[10h] This Philadelphia mathematician proofread Banneker’s almanacs. Along with Ellicot, this first director of the US Mint finished surveying the Mason–Dixon line.

ANSWER: David **Rittenhouse**

<American History>

16. *Note to moderator: In the third part, feel free to censor the quoted word by saying “Un-f-with-ables.”* This author described her unpunctuated, prose-poetic style in a Booker-Prize-winning novel as “fusion fiction.” For 10 points each:

[10h] Name this author who traced the interconnected lives of twelve characters in that novel, which includes the farmer Hattie, her nonbinary grandchild Morgan, and Amma, who writes the play *The Last Amazon of Dahomey*.

ANSWER: Bernardine **Evaristo** [or Bernardine Anne Mobolaji **Evaristo**] (The novel is *Girl, Woman, Other.*)

[10e] Evaristo was featured in the 2019 anthology *New Daughters of Africa*, which also included a “Speech to Langston” delivered by this author of *On Beauty* and *White Teeth*.

ANSWER: Zadie **Smith**

[10m] In *Girl, Woman, Other*, Yazz befriends the “Unfuckwithables,” including the lower-class Courtney, at one of these places, the main setting of *On Beauty*. In *White Teeth*, Marcus Chalfen creates the FutureMouse at one of them.

ANSWER: **college** [or **university**; prompt on **laboratory** or **institute** by asking “at what sort of place is the lab located?”]

<British Literature>

17. This programming paradigm is used in LabVIEW to build GUIs (“GOO-ees”), and in MATLAB’s Simulink to define control systems. For 10 points each:

[10h] Name this programming paradigm contrasted with control flow, which focuses on the movement of inputs and outputs through a pipeline of black-box operators. It is often used in hardware description languages like Verilog.

ANSWER: **dataflow** programming [prompt on **flow**-based programming]

[10e] Dataflow languages model programs as the “directed” form of these mathematical entities, which are composed of nodes and edges. Each edge has a capacity in a “flow” one of these entities.

ANSWER: **graphs** [accept directed **graphs**; accept flow **networks** or transportation **networks**; prompt on **trees**]

[10m] *Two answers required.* In a flow network, one of these two named nodes only has outgoing flow, and the other only has incoming flow. The Ford–Fulkerson algorithm calculates max flow by finding paths from one of these nodes to the other.

ANSWER: **source** AND **sink**

<Other Science (Computer Science)>

18. In one version of this scene, Giovanni Bellori complained about a beardless Jesus and a basket of fruit that could not all have been in season at the same time. For 10 points each:

[10m] Give this scene depicting the shock of two disciples, one wearing a shell pinned to his shirt, as Jesus raises his arm to bless bread. A later version of this scene adds an old woman with a tray of ribs and a pitch-black background.

ANSWER: **Supper at Emmaus**

[10e] This artist painted two depictions of the *Supper at Emmaus*, the later version after he fled Rome for the murder of Ranuccio Tommasoni. Jesus beckons a shocked tax collector in this tenebrist artist’s *Calling of St. Matthew*.

ANSWER: **Caravaggio** [or Michelangelo **Merisi** da Caravaggio; do not accept or prompt on “Michaelangelo”]

[10h] The composition of Caravaggio's *Supper at Emmaus* inspired a notable 20th-century forgery imitating this artist. *Christ with the Woman Taken by Adultery*, another forgery imitating this artist, ended up in Hermann Goering's collection.

ANSWER: Johannes **Vermeer** (The forgeries were painted by Hans van Meegeren.)

<Painting/Sculpture>

19. A 2020 cyberattack on this country's government websites declared that the "wrath of the Pharaohs" would descend if water levels decreased. For 10 points each:

[10m] Name this country that is financing its 4.8-billion-dollar "Grand Renaissance Dam" with bonds and donations to avoid relying on foreign powers.

ANSWER: **Ethiopia** [or Federal Democratic Republic of **Ethiopia**]

[10h] Donald Trump nonsensically declared that Egypt would blow up the dam on an October 2020 phone call with this country's prime minister Abdalla Hamdok, announcing this country's recognition of Israel.

ANSWER: **Sudan** [or North **Sudan**; or the Republic of the **Sudan**; or Jumhūriyyat as-**Sūdān**; do not accept or prompt on "South Sudan"] (Ethiopia summoned the US Ambassador to explain Trump's comments the following day.)

[10e] Sudan withdrew from a new round of dam negotiations in January 2021, demanding that this continent-wide intergovernmental organization headquartered in Addis Ababa be involved as mediator.

ANSWER: **African Union** [or **AU**]

<CE/Geo/Other/Pop Culture>

20. In Book IV of the *Odyssey*, Helen drags Telemachus, Menelaus, and the rest of the men feasting in Sparta to prevent them from performing this action. For 10 points each:

[10e] Give this action that Balios and Xanthus perform while standing on the battlefield after the death of Patroclus. Niobe performs this action incessantly after Artemis and Apollo kill all of her children, even after she turns to stone.

ANSWER: **crying** [or **weeping**; or equivalents]

[10h] Niobe was turned into stone as she cried atop this mountain, thus becoming the Weeping Rock facing Manisa. Pausanias claimed that Broteas, the son of Tantalus, carved a relief of Cybele ("SIB-uh-lee") into this mountain.

ANSWER: Mount **Sipylos** [accept Mount **Spil** or **Spil Dağı**]

[10m] This hero is the only one to cry in a context outside of war in the *Iliad*, when Apollo makes him drop his whip in a chariot race. This hero wounds one enemy on the wrist during his *aristeia*, and later trades armor with Glaucus.

ANSWER: **Diomedes** (The chariot race happens in Book XXIII, during the funeral games of Patroclus; the enemy referenced is Aphrodite.)

<Mythology>