

SOUTHEAST-MIDWEST HOUSEWRITE: PACKET 18

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NOTE: THESE TOSSUPS AND BONUSSES ARE PAIRED. IF THE TOSSUP GOES DEAD, SKIP THE ASSOCIATED BONUS. DO NOT GO BACK AND READ ANY BONUSSES THAT ARE SKIPPED.

1. A man with this name apocryphally let Charles V lean on his shoulder during Charles' abdication ceremony. A 25,000 crown bounty was placed on the head of that man with this name for activities such as funding the Sea Beggars. Another ruler of this name was the namesake of the American theater of the Nine Years' War. Forces of that ruler with this name perpetrated the (*) Glencoe Massacre. A man with this name became the first head of state killed by a handgun after his assassination by Balthasar Gérard. A later man with this name was invited by the "Immortal Seven" to depose James II. For 10 points, give this name shared by the man who led the Dutch Revolt and a Dutch prince who took the English throne with his wife Mary in the Glorious Revolution.

ANSWER: William [accept William of Orange, William the Silent, William I, William III, or Willem]

<Alaro, British/European History> [Ed. Prabhakar]

1. A poem by this author bitterly describes how since "you've wasted your life here, you've destroyed it everywhere in the world." For 10 points each:

[H] Name this poet of "The City", who wrote another poem in which a Roman hero hears an "invisible procession" with "exquisite music, voices" after being deserted by Bacchus.

ANSWER: Constantine Cavafy [or C.P. Cavafy]

[M] "The God Abandons Antony" ends by stating "you are losing" this city. The poem appears in the first novel of a Lawrence Durrell tetralogy set in this city, in which Darley meets Justine after a lecture on Cavafy.

ANSWER: Alexandria

[E] Cavafy's work first appeared in English in this author's travelogue "Alexandria: A History and a Guide." This close friend of Cavafy is better known for novels like *A Passage to India* and *Howards End*.

ANSWER: E. M. Forster [or Edward Morgan Forster]

<Short Fiction/Other, Kala> [Ed. Leahy]

2. A nearest neighbor search can be performed efficiently using a type of these data structures that stores points by partitioning k-dimensional space. Some of these structures undergo a left-right or right-left rotation when a new element is added. These structures can be iterated through in a preorder, inorder, or postorder manner. One type of these structures that uses keys to separate its components is named for the letter (*) B. These structures are connected acyclic graphs. The AVL type of these structures is self-balancing. Depth-first and breadth-first searches act on the binary type of these structures. For 10 points, name these data structures which are made up of root, internal, and leaf nodes.

ANSWER: trees [accept binary trees or binary search trees or BSTs; accept B-trees accept k-d trees; accept AVL trees; accept recursion trees]

<Tang, Computer Science> [Ed. Bowman]

2. One of this artist's self-portraits shows her between a woman in red holding a piece of music and a woman in blue holding an easel, allegorizing *Painting and Music*. For 10 points each:

[H] Name this Swiss painter, who, along with Mary Moser, was one of the two women to help found the Royal Academy. Her history paintings include *Cornelia Pointing to her Children as Her Treasures*.

ANSWER: Angelica **Kauffman** [or Maria Anna Angelika **Kauffmann**]

[E] Kauffman was a part of this broad 18th-century art movement, which drew inspiration from Greco-Roman traditions. Other members of this movement include Jacques-Louis David and Antonio Canova.

ANSWER: **neoclassicism** [accept **neoclassicist** and other word forms]

[M] In 1764, Kauffman created a portrait of David Garrick sitting backwards in a chair. This first president of the Royal Academy also depicted Garrick with two muses in his *David Garrick Between Tragedy and Comedy*.

ANSWER: Sir Joshua **Reynolds**

<Dantzler, Painting & Sculpture> [Ed. Strombeck]

3. A poet from this country disdains people who consider a woman "Lucretia / when [they've] possessed her" in a poem addressed to "you foolish men." Another poem from this country describes "the numbered steps of Lincoln / as he left for the theater" and states "I go among your body as among the world." A modern poet from this country who collaborated on *Nineteen Ways of Looking at Wang Wei* with (*) Eliot Weinberger biographed an early poet from this country in *The Traps of Faith*. A poem from this country describes a river that "goes roundabout, arriving forever" and a "willow of crystal, poplar of water" in the first and last six of its 584 lines. "Sun Stone" was written by an author from, for 10 points, what country home to Sor Juana Ines de la Cruz and Octavio Paz?

ANSWER: **Mexico**

<Leahy, Poetry> [Edited]

3. Carlos Fitzcarrald made his fortune by forcing indigenous Peruvians to extract this good. For 10 points each:

[E] Name this good that experienced a boom in the Amazon during the late 19th century. Henry Ford later set up a failed Amazonian colony to produce this good so he could use it to make automobile tires.

ANSWER: **rubber**

[H] In addition to the Amazon, rubber production boomed in this peninsula thanks to the efforts of "Mad Ridley." Rubber plantations in this peninsula were attacked during a guerrilla war against rebels under Chin Peng.

ANSWER: **Malay** peninsula [accept **Malaya** or **Peninsular Malaysia**]

[M] The rubber industry in the Congo Free State was investigated by E. D. Morel, who later unseated this politician in a 1922 parliamentary race. This politician, who served as First Lord of the Admiralty during World War I, helped develop the Stevenson Plan to stabilize rubber prices.

ANSWER: Winston Leonard Spencer **Churchill**

<Sareddy/Prabhakar, Other History> [Ed. Prabhakar]

4. Most complex time signatures in Arabic music are found in a genre for this instrument called *Muwashshah* which spread from al-Andalus. This instrument attempts to mimic the sound of bagpipes in the Scottish musical form *Puir a beul* ("Purscht ah beal"). Overtones create the effect of multiple lines in the *Khoomei* style for this instrument, which originates in the region of (*) Tuva. In Western classical music, the *vibrato* technique originated with this instrument. Twentieth century music for this instrument often incorporates its semi-pitchless technique of *sprechgesang* ("sprek-geh-sahng"). High notes can be produced using this instrument's *false* register. For 10 points, name this instrument which is featured without accompaniment in a *cappella* ensembles.

ANSWER: human **voice** [accept **singing** or **singers**; accept specific voice ranges like **soprano**, **alto**, **tenor**, or **bass**; accept **voice** box or **larynx**; prompt on **human** or human **body**]

<Karthik, Classical Music> [Ed. Strombeck]

4. A consequence of this theorem is that the average kinetic energy of a mole of ideal gas molecules is equal to three-halves RT . For 10 points each:

[M] Name this theorem, which states that if all terms are quadratic, each degree of freedom contributes the same amount to the total energy of the system.

ANSWER: **equipartition** theorem

[E] The equipartition theorem can explain the Dulong-Petit (“DOO-long peh-TEE”) law, which gives this quantity for a room temperature solid. It measures the heat required to raise the temperature of a given substance.

ANSWER: **heat capacity** [or specific **heat capacity**; prompt on **specific heat**]

[H] The “ultraviolet catastrophe,” a term coined by this physicist, results when the equipartition theorem incorrectly models blackbody radiation. This physicist’s namesake equation relates the expectation values of the position and momentum operators to the expectation value of force.

ANSWER: Paul **Ehrenfest**

<Zhao, Physics> [Edited]

5. Description acceptable. Before an instance of this action, Vali is transformed into a wolf and disembowels his brother Narfi. Before being subjected to this action, one god transforms into a salmon but is later caught by Thor. During another instance of this action, the river Van is formed from the saliva of a creature whose (*) mouth is held open with a sword. An object used to perform that action is crafted using the breath of a fish and the roots of a mountain. Skadi places a venom dripping serpent over a figure in one instance of this action and Tyr loses his hand while the gods perform this action to a beast slated to kill Odin during Ragnarok. For 10 points, name this action done to Loki using his son’s entrails and Fenrir using the chain Gleipnir.

ANSWER: **binding** [or **restraining**; accept **chaining** before mentioned; accept equivalents such as being **tied up**; prompt on **trapping**, **capturing**, **imprisoning**, or other equivalents by asking “what specific action is done to keep the subject imprisoned”]

<Bowman, Mythology> [Ed. Groger]

5. Schools called Punana Leo (“Poo-nah-nah LAY-o”) in this U.S. state teach exclusively in its official native language. For 10 points each:

[E] Name this U.S. State. English borrows words like “aloha” and “ukelele” from a language spoken in this state.

ANSWER: **Hawai’i** [or Kingdom of **Hawai’i**; accept **Hawai’ian**]

[M] The letters “e” and “i” in the Hawai’ian word “lei” form this sort of vowel structure, in which a single syllable glides from one vowel sound to another.

ANSWER: **diphthong**

[H] The ‘okina (“oh-KEE-nah”) in Hawai’ian denotes this consonant sound, which is formed by completely cutting off the airflow in the back of the throat between two vowel sounds.

ANSWER: **glottal stop** [or **glottal plosive**]

<Bowman, Linguistics> [Edited]

6. This politician was interviewed by Alexis de Tocqueville on a steamboat while representing a group led by John Jolly, who had taken in this politician as a young man. This politician resigned as governor and moved to live with a tribe after the 19 year old Eliza Allen left him. After this politician was accused of defrauding the Cherokee, he attacked Congressman William Stanbery with his (*) cane. This politician was removed as governor when he refused to take a Confederate oath during his state’s secession. This man’s forces took only 18 minutes to win the Battle of San Jacinto against Santa Anna. For 10 points, name this first president of the Republic of Texas, who gives his name to the state’s largest city.

ANSWER: Samuel **Houston** [accept Sam **Houston**]

<Strombeck, American History> [Edited]

6. A 1981 photograph shows this man wrapped head to toe in fabric. For 10 points each:

[M] Name this Bulgarian artist who died in May 2020 and is known for his many collaborations with his wife that include 1995's *Wrapped Reichstag*.

ANSWER: Christo Vladimirov Javacheff [accept either underlined portion]

[H] This photographer took that picture of Christo. Meryl Streep tugs diagonally at the corners of her white painted face in a *Rolling Stone* cover photograph by this artist.

ANSWER: Annie Leibovitz [or Anna-Lou Leibovitz]

[E] The aforementioned Leibovitz photograph was taken at this New York location where Jean-Claude and Christo created their installation *The Gates*. Diane Arbus photographed a child with a hand grenade in this Frederick Law Olmstead designed park.

ANSWER: Central Park

<Dantzler, Miscellaneous Fine Arts> [Ed. Strombeck]

7. In a novel mostly set in this city, a man who works for the lawyer Mr. Brass searches for a woman in the countryside, intending to marry her for a fake fortune in a plot organized by an evil dwarf. A man accidentally slips from a roof and hangs himself in this city while haunted by the news of his dead girlfriend. The serial *Master Humphrey's Clock* was printed in this city by an author who wrote about a boy whose half-brother (*) "Monks" steals his mother's locket. The protagonist of a novel escapes to this city after being mistreated by the gravedigger Mr. Sowerberry; that protagonist is taught to pickpocket people in this city by Fagin and the Artful Dodger. The old curiosity shop is located in, for 10 points, what city, the home of many orphans created by Charles Dickens?

ANSWER: London, England

<Ashbrook, Long Fiction> [Edited]

7. Winston Tubman criticized the awarding of the 2011 Nobel Peace Prize to this leader just prior to her re-election. For 10 points each:

[H] Name this leader who shared that prize with Leymah Gbowee, head of a women's peace movement in this leader's country. This leader first came to power after defeating George Weah in a 2005 election.

ANSWER: Ellen Johnson Sirleaf [accept Ellen Eugenia Johnson; accept either name]

[M] Ellen Johnson Sirleaf was the first female president of this country, where Gbowee led Muslim and Christian women to help end this country's second civil war. The end of that war saw this country's president Charles Taylor sent into exile.

ANSWER: Republic of Liberia [accept Liberian Civil War; accept the Second Liberian Civil War; accept the Women of Liberia Mass Action for Peace]

[E] As a member of the Kpelle people, Gbowee initially struggled to organize women as the many women's activists at the time were descended from these people, who were brought to Liberia by the American Colonization Society.

ANSWER: free Black Americans [accept freed slaves or freedmen; prompt on Americans or Americo-Liberians or Black Americans or African-Americans]

<Nageswaran, World History> [Ed. Prabhakar]

8. A thinker claiming to be part of this tradition coined the term “ironism” and used this tradition’s ideas to write a text criticizing the idea that our minds correctly “mirror” reality. One thinker from this tradition identified four methods of settling opinions, the least effective of which are the methods of “tenacity” and “authority.” Another thinker from this tradition argued for the (*) circumstantial adoption of beliefs with no proven truth in a text justifying faith titled “The Will to Believe;” that philosopher developed a “cash value” theory for conceptions based on a question of whether a man was going around a squirrel. For 10 points, name this philosophical tradition that espouses practical thinking, members of which included C.S. Peirce (“purse”) and William James.

ANSWER: **pragmatism** [accept neopragmatism; accept word forms like **pragmatists**]
<Ashbrook, Philosophy> [Edited]

8. Many reactions form compounds that are insoluble in water and thus precipitate. For 10 points each:

[E] Precipitates can be removed from solution using this process that separates solids from liquids. A Büchner funnel is commonly used in its vacuum type.

ANSWER: **filtration**

[H] Hot filtration is used in this technique that separates out impurities into a mother liquor. The fractional form of this technique can be used to remove potassium dichromate from a solution with sodium chloride.

ANSWER: **recrystallization**

[M] Before filtration, one can centrifuge a solution first, forcing a suspended precipitate to fully settle and forming this clear liquid at the top. It is decanted afterwards, leaving the solid behind.

ANSWER: **supernatant** fluid

<Zhao, Chemistry> [Ed. Lei]

9. Proteins bound to these structures are disassembled by the ATPase NSF. Cargo receptor proteins in these structures bind AP-2 complexes, which then bind a protein with three heavy and three light chains. The “kiss-and-run” model implies rapid recycling of these structures. In one process involving these structures, a VAMP binds to syntaxin and SNAP-25 to form a trans- (*) SNARE complex. Botulinum toxin cleaves proteins bound to these structures. These structures can be coated in clathrin, COPI (“cop-one”), or COPII (“cop-two”). Proteins are packaged into these structures at the trans face of the Golgi apparatus. For 10 points, name these structures, produced during exocytosis, which are made of a fluid surrounded by a lipid bilayer and are used for transport.

ANSWER: **vesicles** [accept synaptic **vesicles**]

<Karthik, Biology> [Ed. Lei]

9. A book by this writer helped popularize the term *jahiliyyah* (“jah-HILL-lee-yah”), often translated as “age of ignorance.” For 10 points each:

[H] Name this radical Islamic theorist and member of the Muslim Brotherhood who advocated for the creation of a vanguard to protect the faith through preaching and *jihad* in his book *Milestones*.

ANSWER: Sayyid Ibrahim Husayn Shadhili **Qutb** (“KOO-tuhb”)

[M] Qutb wrote a 1950 essay titled *Our Struggle Against* [these people], expressing his hatred towards them. Along with Christians and Sabians, these people are considered “people of the book.”

ANSWER: **Jews** [accept **Jewish** people; accept people practicing **Judaism**]

[E] One of the practices advocated by Qutb in *Milestones* is *takfir* (“takh-FEER”), which refers to this action. In Catholicism, *latae sententiae* and *ferendae sententiae* are types of this action, in which the target of it is shunned by the Church.

ANSWER: **excommunication** [accept **being excommunicated**; accept descriptive answers such as “**declaring them not Muslim**”]

<Prabhakar, Religion> [Ed. Ashbrook]

10. In this opera, a song about a train coming into a station is sung by a chorus after an undertaker agrees to bury a body despite not receiving enough money. The line “Little David was small but oh my” is part of a blasphemous aria sung by a character in this opera who sells a woman “Happy Dust.” An ominous buzzard appears in this opera shortly before a picnic on (*) Kittiwah Island. After a woman dies in a hurricane in this opera, another character sings her baby to sleep with an aria about how “the livin’s easy.” This opera ends with one of its main characters pursuing the other to New York after she runs off with Sportin’ Life. For 10 points, “Summertime” was written for what opera about two title residents of Catfish Row, by Ira and George Gershwin?

ANSWER: **Porgy and Bess**

<Dantzer, Opera> [Ed. Strombeck]

10. In one play, a character must fall wherever he is upon hearing the sound of this object, leading to him dirtying his clothes. For 10 points each:

[H] Name this general object, used by Fefu to assert dominance over her husband. In another play, a matriarch uses this object to chase an offscreen character who “devours you all like grains of wheat.”

ANSWER: a **gun**

[M] Fefu appears in *Fefu and Her Friends*, a play with this characteristic by María Irene Fornés. At the start of another play with this characteristic, five siblings are instructed to mourn for eight years after the death of their father.

ANSWER: **all-female** cast [accept equivalents like a cast composed of **only women**]

[E] The title matriarch shoots the adulterous Pepe in *The House of Bernarda Alba*, a play by this author of *Blood Wedding*.

ANSWER: Federico Garcia **Lorca**

<Leahy, Drama> [Edited]

11. This work traces its roots to a previous Paris edition in a forged supplement by the Spanish scholar José Marchena. The protagonists of this work steal treasure from a recently-wrecked ship after a series of “unfortunate love affairs” involving Doris, Lycas, and Tryphaena. One section of this work opens with a bald old man and several long-haired boys playing with a green ball while eunuchs carrying chamber pots look on. A (*) magpie in a golden cage greets visitors to a house in this novel, and that house in this novel contains sprawling mosaics warning slaves not to run away and warning visitors to *cave canem*, or “beware the dog.” In this novel, Encolpius and his companions Giton and Ascyltos attend a lavish feast hosted by the freedman Trimalchio. For 10 points, name this only extant novel by Petronius.

ANSWER: The **Satyricon**

<Delot-Vilain, Long Fiction> [Edited]

11. This institution’s arrival in a city was marked with its issuance of an Edict of Grace. For 10 points each:

[E] Name this institution that sought to root out anti-Catholic heresy in the lands of Ferdinand and Isabela. Tomás de Torquemada headed this institution that publicly punished heretics during *autos-da-fé* (“AUTOS-duh-fay”).

ANSWER: **Spanish Inquisition** [prompt on **Inquisition**]

[M] A punishment meted out by the Spanish Inquisition was “relaxado en persona,” a euphemism for this method of execution. The Spanish theologian Michael Servetus was executed by this method in Geneva after his denouncement by John Calvin.

ANSWER: **burning** at the stake [accept being publicly **burned** and **burning** alive]

[H] The Inquisition could also condemn heretics to wear one of these garments called a *sanbenito*. Noblewomen in the Late Middle Ages sometimes wore an example of this garment called the *hennin*.

ANSWER: **hats**

<Prabhakar, British/European History> [Edited]

12. This element enters bacterial cells through CorA (“core-AY”) protein channels. This element is chelated with phosphate groups on RNA molecules to aid in the assembly of the large ribosomal subunit. This element is the cofactor for the glycolysis enzymes hexokinase and phosphofructokinase. The cation of this element binds to a carbamylated lysine in order to position itself in the active site of the enzyme RuBisCO. It’s not iron, but a namesake chelatase inserts this element into a (*) porphyrin ring in one of its most notable molecules. This element binds to DNA and RNA to stabilize their structures. ATP must be bound to this element in order to be biologically active. This element is found in the center of a chlorophyll molecule. Epsom salt is the sulfate of this element. For 10 points, name this second-lightest alkaline earth metal.

ANSWER: **magnesium** [or **Mg²⁺** or **Mg⁺⁺**]

<Lau, Chemistry> [Ed. Lei]

12. In late 2020, the Trump administration designated 88% of the employees of this agency as Schedule F appointees, removing their civil service protections. For 10 points each:

[H] Name this agency. In the period after the 2020 presidential election, this agency’s former head Russell Vought refused to let its staffers meet with Biden transition officials.

ANSWER: Office of **Management and Budget** [or the **OMB**]

[E] The planned rollout of Schedule F appointments was halted during Biden’s first week in office using this method. This method is often used to circumvent Congress as it allows the president to issue federal directives.

ANSWER: **executive orders** [accept **EOs**]

[M] This president of the Center for American Progress was nominated by Biden to lead the OMB. This woman’s nomination was withdrawn after Joe Manchin announced his opposition, in part due to her past tweets.

ANSWER: Neera **Tanden**

<Leahy, Current Events> [Ed. Nageswaran]

13. After being refused entry into one of these organizations in Boston, the freedman Prince Hall founded a namesake branch of these organizations for African-Americans in 1784. Clement XII's *In eminenti apostolatus* originated the Catholic ban on joining these organizations. The disappearance of William Morgan led to the creation of an American (*) third party opposed to these organizations. These organizations use the symbol of a square and compass, and most recognize the Grand Lodge of England as their highest body. For 10 points, name these fraternal organizations that take their name from their origins as a guild of stoneworkers and are frequent targets of conspiracy theories.

ANSWER: Free**masons** [accept word forms like Free**masonry**; accept **Masonic** Lodges; accept Continental Free**masons**; accept Regular Free**masons**; accept Prince Hall Free**masons**]

<Strombeck, Other History> [Ed. Prabhakar]

13. Gerard Manley Hopkins exclaims “Despair, not feast on me” in “Carrion Comfort,” part of a collection of this type of poem. For 10 points each:

[E] Name this poetic form used to write those “terrible” poems. Hopkins also described “Fresh-firecoal chestnut-falls” and “all the dappled things” in a poem written in a “curtal” version of this fourteen-line poetic form.

ANSWER: **sonnet**

[H] In this other sonnet by Hopkins, the speaker announces the capture of a "dapple-dawn-drawn Falcon." This poem’s title bird “rebuffed the big wind,” leaving the speaker’s “heart in hiding.”

ANSWER: “The **Windhover**”

[M] “The Windhover” was written in this poetic rhythm with a stressed first syllable, which Hopkins pioneered. Welsh folk songs inspired the coinage of this rhythm, whose feet can range from one to four syllables.

ANSWER: **sprung** rhythm

<Mehra, Poetry> [Ed. Leahy]

14. This process is the end result of almost 90% of the work done by the Zabbaleen in Egypt. The implementation of the “Green Fence” and “National Sword” policies led to an increase in this process in many southeast Asian countries, including Malaysia. The quality of this process can be hindered by its single-stream variant. Residents of California pay a (*) reimbursable surcharge of 5 or 10 cents on items used in this process as part of the state’s CRV program. The letters PETE appear on items involved in this process. Whether or not a given item can undergo this process may be indicated by a number 1 through 7 inside a triangle formed by three arrows. For 10 points, name this process of converting waste, especially plastic waste, into new usable objects.
ANSWER: **recycling** [accept word forms such as being **recycled**; prompt on garbage collection by asking “What is being done with the garbage after collection?”; prompt on waste processing by asking “What kind of process is the waste undergoing?”]

<Delot-Vilain, Other Academic> [Ed. Nageswaran]

14. This molecule is present in insufficient levels in Addison’s Disease. For 10 points each:

[M] Name this steroid hormone which is synthesized in the adrenal cortex and is commonly prescribed as an over-the-counter itch medication.

ANSWER: **cortisol** [or **hydrocortisone**, do NOT accept “cortisone”]

[E] Cortisol also stimulates the crosslinking between elastin and this glycine-rich protein that forms the main structural component of connective tissue.

ANSWER: **collagen**

[H] Crosslinking of collagen is done by the lysyl type of these enzymes, which is stimulated by cortisol. Another enzyme of this type converts 3-methoxytyramine to homovanillic acid.

ANSWER: **oxidases** [accept lysyl **oxidase** or monoamine **oxidase**, prompt on MAO, prompt on oxidoreductases]

<Lau, Biology> [Ed. Lei]

15. One text named after these creatures accuses Jews of following Solomon in practicing sorcery taught by the angels Harut and Marut. Jeroboam constructed two temples at Bethel and Dan featuring images of these creatures to try and prevent pilgrimages to Jerusalem. A text named after one of these creatures describes a figure whom “no slumber nor sleep will overtake” after a verse about an object that “extends over the heavens and Earth.” In Genesis, the (*) Pharaoh dreams of seven thin examples of these animals eating seven fat ones. The Throne Verse appears in a *surah* named for these animals, which is the second and longest in the Qur’an. For 10 points, Moses received the Ten Commandments while the Israelites idolized a golden statue of what animal?

ANSWER: **cows** [or **heifers**; or **calves**; accept golden **calves** or **cows**; accept al-**Baqarah**]

<Ashbrook, Religion> [Edited]

15. This composer wrote a set of seven pieces to be performed by a trio of experimental instruments called trautoniums. For 10 points each:

[M] Name this prolific German composer who wrote sonatas for almost every concert instrument. This composer fled Germany shortly after the completion of his opera about Mathias Grunewald, *Mathis der Maler*.

ANSWER: Paul **Hindemith**

[E] Hindemith was a talented performer of this instrument and premiered William Walton's concerto for it. This string instrument is slightly larger than a violin.

ANSWER: **viola**

[H] Hindemith's own viola music includes *Trauermusik* and this concerto, in which each movement is based on a German folk song, including the one that titles this concerto.

ANSWER: *Der **Schwanendreher*** [or *The **Swan Turner***]

<Strombeck, Classical Music> [Edited]

16. This constant is treated as a scalar field symbolized phi that varies over space and time in an alternative theory named for two American physicists. This physical constant appears in the numerator of a value that scales the stress-energy tensor in the Einstein field equations. This quantity is multiplied by 2 times mass in the numerator for the Schwarzschild radius. This constant is multiplied by (*) “8 pi over c to the fourth” in Einstein’s constant. Henry Cavendish used a torsion balance to measure this constant, which is the constant of proportionality in an inverse-square law named for Isaac Newton. For 10 points, name this constant that characterizes the pulling force that two massive objects have on each other.

ANSWER: universal **gravitational** constant [or **big-G**; prompt on **G**; do NOT accept or prompt on little-g] (The first line refers to Brans-Dicke theory.)

<Bowman, Physics> [Edited]

16. Name some works and authors describing just how much it sucked to fight in World War I, for 10 points each: [E] An epigraph claiming to be “neither an accusation nor a confession” opens this Erich Maria Remarque novel in which Paul Baumer is bamboozled into conscripting by his teacher Kantorek.

ANSWER: ***All Quiet on the Western Front***

[M] The “last Tory” Christopher Tietjens is repeatedly cheated on during his service in this author’s *Parade’s End* series. This author describes “the saddest story ever told” as John Dowell’s wife cheats on him in *The Good Soldier*.

ANSWER: Ford Madox **Ford**

[H] Joe Bonham tries to get his body toured around the country in a glass box after having all of his limbs and face blown off in this horrifying anti-war novel by Dalton Trumbo.

ANSWER: ***Johnny Got His Gun***

<Leahy, Long Fiction> [Edited]

17. During this non-American period, thousands of people participated in the “March of loyalty to martyrs” after the killing of protestors on Bloody Thursday. Several children from the city of Deraa were arrested after graffitiing the main slogan of this period, “the people want to bring down the regime.” A leader who came to power during this period was opposed by the Tamarod Movement. One government destroyed the (*) Pearl Roundabout, a gathering place for protests during this period. Zine El Abidine Ben Ali was overthrown during the period, which was sparked after the self-immolation of street vendor Mohamed Bouazizi in Tunisia. For 10 points, name this series of anti-government protests and uprisings in several countries in the Middle East and North Africa during the early 2010s.

ANSWER: **Arab Spring** [accept **2011 Bahraini Uprising** or **February 14th Uprising**; accept **Syrian Revolution** after “Daraa”; accept **2011 Egyptian Revolution** or **January 25th Revolution** or **Egyptian Crisis** after “Tamarod”; accept **Tunisian Revolution** after “Jasmine”]

<Sareddy, World History> [Ed. Prabhakar]

17. The Compton-Belkovich anomaly is an area on this object with unusually high amounts of thorium. For 10 points each:

[M] Name this object which, according to the giant impact hypothesis, formed from the debris of a collision involving Theia.

ANSWER: Earth’s **moon**

[H] Current models believe that if Theia existed, it would have formed at one of these two Lagrange points. These two Lagrange points lie on the orbiting path and form an equilateral triangle with the two bodies.

ANSWER: the **fourth** AND **fifth** Lagrange points [or **L4** AND **L5**; prompt on either individually]

[E] One piece of evidence for the giant-impact hypothesis is that the Earth and moon share an identical ratio of this element’s 16 and 17 isotopes. This element is the second-most abundant in Earth’s atmosphere, behind nitrogen.

ANSWER: **oxygen**

<Bowman, Astronomy> [Edited]

18. In a novel titled for one of these places, Ava is assaulted by the Bird Man after she and her sister use a Ouija board to communicate with spirits. In that novel, Kiwi argues with his father The Chief about whether or not to sell one of these places. One of these places named after the Civil War is “in bad decline” and titles a (*) George Saunders collection. The cocky, chaos-theory loving mathematician Ian Malcolm correctly predicts the failure of one of these places, though he dies after the programmer Dennis Nedry turns off critical electric fences in one of these places. In a Michael Crichton novel, one of these places attracts visitors by hosting cloned dinosaurs. For 10 points, name this kind of place, one of which featuring dinosaurs was the subject of a Spielberg movie.

ANSWER: **amusement parks** [or **theme parks**; accept **Swamplandia!**; accept **Jurassic Park**; prompt on **parks**; prompt on **swamps** with “The swamp names what kind of location?”]

<Delot-Vilain, Short Fiction/Other> [Ed. Leahy]

18. This man and his son started the downward turn of Israel away from the teachings of the Old Testament. For 10 points each:

[E] Name this son of David in the Bible, a wise king who is the namesake of the First Temple of Jerusalem. In one story, this man settles a dispute by offering to cut a baby in half.

ANSWER: King **Solomon**

[M] Solomon’s son Rehoboam became the first king of this place following a rebellion by the ten northern tribes. This kingdom had its capital at Jerusalem and was made up of the Southern part of the United Monarchy of Israel.

ANSWER: Kingdom of **Judah**

[H] The revolt against Rehoboam was led by Jeroboam, a member of the tribe named for this man. The Samaritans claim to be descended from the tribes of this second son of Joseph and his brother Manasseh.

ANSWER: **Ephraim** [accept Tribe of **Ephraim**]

<Groger/Valan, Mythology> [Ed. Groger]

19. Andrei Zavrotsky visited this body of water three times to study one natural phenomenon that produces a high amount of ozone. Nancy Wexler visited two settlements on this body of water to study the high rate of Huntington’s disease among their inhabitants. Zapara Island is located in this body of water, whose Tablazo Strait is crossed by the General Rafael Urdaneta Bridge. The flag of the state of (*) Zulia was inspired by the lightning at where the Catatumbo River feeds into this lake. The PDVSA operates refineries along the coast of this lake, which has some of the largest oil reserves in the world. For 10 points, name this largest lake in South America, located in Venezuela.

ANSWER: Lake **Maracaibo**

<Prabhakar, Geography> [Edited]

19. Gaunilo (“gah-NEE-low”) raised an objection to this argument by positing an island greater than all other islands that must necessarily exist. For 10 points each:

[E] Name this argument for God’s existence that says that if we can envision an omnipotent being in our minds and God is greater than all things, then God must exist in mind and in reality.

ANSWER: **ontological** argument [or **ontological** proof]

[H] Modern versions of the ontological argument like Kurt Gödel’s (“gurr-dole’s”) argument often make use of modal logic, which is based on these two expressions. These two expressions are represented with a square and diamond, respectively. Name either.

ANSWER: **necessity** OR **possibility** [accept both answers; accept word forms like “**necessary**” or “**possible**”]

[M] The original ontological argument is credited to this Medieval theologian, who argued that since God is the greatest being imaginable, and something that exists is greater than something that doesn’t, God must exist.

ANSWER: Saint **Anselm** of Canterbury [accept **Anselm** of Aosta; accept **Anselm** of Bec; accept **Anselmo d’Aosta**; accept **Anselme du Bec**]

<Karthik, Philosophy> [Ed. Ashbrook]

20. One of these artworks includes an aerial view of a large group of somber men with hats and rifles moving toward the viewer to depict the title *Revolution*. Another of these artworks depicts skeletons in various academic and religious outfits in its section “Gods of the Modern World.” That one of these artworks is on display in the basement of Baker Library at Dartmouth. A massive one of these artworks titled (*) *The March of Humanity* was created by David Siqueiros. Examples of these artworks include *The Epic of American Civilization* and a work that was destroyed for including a depiction of Vladimir Lenin. That work of this type, created for the Rockefeller Center, was titled *Man at the Crossroads*. For 10 points, Mexican artists like José Clemente Orozco and Diego Rivera were famous for creating what type of artwork which is painted onto a wall?

ANSWER: **murals** [accept **muralism** and word forms; prompt on **wall** art before mention; prompt on **frescoes**] <Bowman, Painting & Sculpture> [Ed. Strombeck]

20. Answer the following about the life of Civil Rights activist Yuri Kochiyama. For 10 points each:

[E] Kochiyama was kept in the Jerome Relocation Center in Arkansas as a result of this policy. This policy, enacted by Executive Order 9066, targeted a certain ethnicity during World War II.

ANSWER: **Japanese internment** [accept answers involving the forcible **incarceration** of **Japanese**-Americans or **Japanese internment** camps; prompt on **internment** with “Of which people?”]

[H] Kochiyama led a group of Asian-Americans in support of Mumia Abu-Jamal, an activist arrested for shooting a police officer in this city. Abu-Jamal was a member of an organization founded by John Africa in this city.

ANSWER: **Philadelphia** (the organization is MOVE)

[M] Kochiyama was pictured cradling this man’s head in a 1965 *Life* photograph taken in the Audubon Ballroom. In a speech, this man suggested that African Americans may need to use violence if voting wouldn’t secure their rights.

ANSWER: **Malcolm X** [or el-Hajj Malik **el-Shabazz** or Malcolm **Little**] (The speech is “The Ballot or the Bullet”) <Nageswaran, American History> [Edited]
