

SOUTHEAST-MIDWEST HOUSEWRITE: PACKET 15

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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. The tropospheric concentration of this molecule is increased by the invasive kudzu vine because it releases isoprene. Decreasing amounts of this molecule were detected by the TOMS instruments, which observed this molecule by monitoring its Chappuis (“shah-poo-EE”) band. Nacreous clouds and other polar clouds react with this molecule in regions with low temperatures by acting as catalytic surfaces. The (*) ions OH and NO catalyze the recombination stage of the Chapman cycle, decreasing the amount of this molecule in the atmosphere. The Montréal Protocol established a ban on substances that deplete this molecule called chlorofluorocarbons. For 10 points, name this allotrope of oxygen that forms a protective “layer” around the Earth.

ANSWER: ozone

<Bowman, Earth Science> [Edited]

1. A document supporting this strategy declared “freedom is the most contagious idea in history” and called for a higher military budget to accomplish it. For 10 points each:

[M] Name this strategy advocated by NSC-68. This core policy of the Truman Doctrine was also the subject of an article in *Foreign Affairs* written under the pseudonym Mr. X.

ANSWER: containment

[H] This diplomat outlined the policy of containment in the Long Telegram. This man’s opposition to using the military to accomplish containment led to Dean Acheson removing him as the Director of Policy Planning.

ANSWER: George Frost Kennan

[E] Dean Acheson served in this cabinet position under Harry Truman. This position was earlier held by George Marshall, whose vision of Cold War foreign policy was formulated in his namesake Plan.

ANSWER: Secretary of State

<Prabhakar/Nageswaran, American History> [Ed. Nageswaran]

2. In 2012, a version of this novel was published using 14 different colors of ink in the first section, as its author originally intended. A character in this novel repeatedly sees “smooth, bright shapes” while staring at fire in a mirror and while asleep. In the last section of this novel, the only one not to be narrated in first person, the exclamation “I got the recollection and the blood of the Lamb!” is repeated in an Easter sermon by the visiting Reverend (*) Shegog. This novel opens with the narrator looking at a golf course through a fence while Luster looks for a lost quarter so he can attend a show. In this novel, the cognitively impaired Benjy repeatedly claims his sister Caddy smells like trees, and Quentin commits suicide while at Harvard. For 10 points, name this novel by William Faulkner that primarily chronicles the declining Compson family.

ANSWER: The Sound and the Fury

<Delot-Vilain, Long Fiction> [Ed. Leahy]

2. The Surah ar-Rum (“ar-ROOM”) claims that this empire will win one war due to their monotheism. For 10 points each:

[E] Name this empire whose rulers appointed Patriarchs of Eastern Orthodox Christianity to spread it to Eastern Europe. This empire’s main church was the Hagia Sophia, built under the orders of Justinian.

ANSWER: **Byzantine** empire [or **Byzantium**; accept **Eastern Roman** Empire]

[M] A schism in the 860s broke out after Patriarch Photius refused to accept the addition of the *filioque* (“FEE-lee-oh-kway”), meaning “and from the Son” to this statement. This statement begins, “We believe in one God, the father almighty, creator of heaven and Earth.”

ANSWER: **Nicene Creed** [accept **symbolum Nicaenum**]

[H] The Archbishop of Constantinople John Chrysostom (“KRYUS-us-tome”) wrote hundreds of these works, such as one read on Paschal in Eastern Orthodox Easter services. These works are commentaries on scriptures read during mass.

ANSWER: **homily** [or **homilies**; prompt on **sermons**]

<Prabhakar, Religion> [Ed. Ashbrook]

3. The Fairmont Norfolk Hotel was bombed in retaliation for this event. During this event, a black Mercedes was stopped by security guards after intelligence had failed to report that one world leader had recently bought a white Mercedes instead. Michel Bacos was given the Legion of Honour after this event. One leader ordered the killing of Dora (*) Bloch after this event, which was triggered by an earlier event masterminded by Wilfried Böse. This event was carried out by special forces under the command of Yonatan Netanyahu. 102 passengers of Air France Flight 139 were rescued in, for 10 points, what Israeli mission to save them from a Ugandan airport?

ANSWER: Operation **Entebbe** [or the **Entebbe** raid or the raid on **Entebbe**; accept Operation **Thunderbolt**; accept Operation **Yonatan**]

<Valan, World History> [Ed. Prabhakar]

3. This series of artworks depicts one of the Five Routes, and it begins and ends with depictions of people crossing bridges. For 10 points each:

[H] Name this numerical series of artworks which tracks a journey from Edo to the imperial capital of Kyoto.

ANSWER: *The **Fifty-three Stations of the Tōkaidō*** (“toh-kaa-ee-doh”) [or **Tōkaidō Gojūsan-tsugi**]

[M] *The Fifty-three Stations of the Tōkaidō* is an example of this style of art. This genre, which translates as “pictures of the floating world,” includes many woodblock prints during the Edo period.

ANSWER: **ukiyo-e** (“oo-kee-YOH-ay”)

[E] An *ukiyo-e* print by Hokusai Katsushika depicts a “Great” one of these entities overwhelming several men “off Kanagawa.”

ANSWER: **wave** [accept *The Great **Wave** off Kanagawa*; accept rogue **wave** or tidal **wave**; accept **tsunami**]

<Lei, Painting & Sculpture> [Edited]

4. A region in this state had its Tea Party-supporting political base documented in Arlie Hochschild's 2016 book *Strangers In Their Own Land*. Since November 2020, Formosa Plastics has been blocked in their attempt to build a factory in a heavily polluted region of this state along its main river. For the prevalence of disease in it, a riverside region in this state is known as (*) “Cancer Alley.” A 2021 special election in this state replaced a congressman criticized for receiving donations from the oil and gas lobbies; that man is Cedric Richmond. An oft-cited example of environmental racism in this state was the destruction of a city's Lower Ninth Ward during a 2005 hurricane. For 10 points, name this state where Hurricane Katrina ravaged the city of New Orleans.

ANSWER: **Louisiana**

<Strombeck, Current Events> [Ed. Nageswaran]

4. At the end of the poem “since feeling is first,” this figure is said to be “no parenthesis.” For 10 points each:
[M] Name this figure, who is asked “how do you like your blue-eyed boy” at the end of the poem “Buffalo Bill ‘s.”

ANSWER: **Death** [or Mister **Death**]

[H] This other poem states “death is a master from Deustchland his eye is blue / he strikes you with lead bullets his aim is true.” This poem opens with the line “black milk of mornings we drink you evenings.”

ANSWER: “**Todesfuge**” (“TOE-dez-FOO-guh”) [or “**Death Fugue**”]

[E] Alice Cary describes the “perfidious sea” as shining “like the blue hungry eye of Death” in a poem titled for a performer of this action. One of these actions “On the Orient Express” is investigated by Hercule Poirot.

ANSWER: **murders** [accept “The **Murderess**” or **Murder on the Orient Express**]

<Bowman, Poetry> [Ed. Leahy]

5. One book by this thinker coined a term that allows for the countability of essences, known as “sortals.” In that book, this thinker argued that shared qualities are abstract ideas known as “nominal essences,” as opposed to “real essences.” In another work, this thinker argued that slavery is only legitimate when it’s a continuation of the “state of war.” He’s not Rousseau, but this thinker opposed (*) Hobbes by holding that people are free to conduct themselves as they see fit in the “state of nature” in a work partially responding to Robert Filmer; that treatise inspired the founding fathers with its declaration that all people should have the right to “life, liberty, and property.” For 10 points, name this British philosopher of *An Essay Concerning Human Understanding* and *Two Treatises of Government*.

ANSWER: John **Locke**

<Ashbrook, Philosophy> [Edited]

5. Answer the following about the chemistry of ice cream, for 10 points each.

[E] Ice cream can be considered a complex one of these substances, as it is a combination of a foam and emulsion. Particles in these substances scatter light in the Tyndall effect.

ANSWER: **colloids**

[M] Traditionally, ice cream is cooled with a mixture of salt and water ice during preparation. On a phase diagram, the lowest possible melting point of such a binary mixture occurs at this point, which is -21.2 degrees Celsius for salt water.

ANSWER: **eutectic** point

[H] The beta form of these ring-shaped oligomers can act as an emulsifier, so it can be added to ice cream. These compounds, the stationary phase in chiral column chromatography, are glucopyranoses linked in a ring.

ANSWER: **cyclodextrins**

<Zhao, Chemistry> [Ed. Lei]

6. In one speech, a critic of this legislation denounced it for “enabl[ing] the enemies of free institutions, with plausibility, to taunt us as hypocrites.” The final version of this legislation was influenced by the F Street Mess, whose members included David Atchison. This legislation was meant to increase support for a transcontinental (*) railroad which would pass through its sponsor’s home state. This bill was attacked by that sponsor’s opponent in the Peoria Speech. The Freeport Doctrine defended this legislation, which effectively repealed the Missouri Compromise. Stephen Douglas sponsored, for 10 points, what 1854 bill that organized two Midwestern territories and let their residents decide if they would be free or slave states?

ANSWER: **Kansas-Nebraska** Act

<Prabhakar, American History> [Ed. Nageswaran]

6. The Apache tsii'edo'a'tl ("tsee-EH-doh-ah-till"), the only Native American instrument that is played with a bow, is a member of this class. For 10 points each:

[H] Name this class of musical instruments consisting of those whose strings do not extend past the end of their soundboard. Other instruments in this class include the psaltery and the dulcimer.

ANSWER: **zithers** [prompt on string instruments]

[E] Even though the tsii'edo'a'tl is a zither, it is referred to as the Apache analog of this instrument. The most common form of this bowed string instrument, often used in folk and country music, is nearly identical to a violin.

ANSWER: Apache **fiddle** [prompt on violin]

[M] Another Pre-Columbian string instrument is the Mesoamerican *chapareke*, which is called this body part's "bow." The gewgaw ("GOO-gaw"), also known as a Jew's Harp, relies on the resonance of this body part to produce sound.

ANSWER: the **mouth** [accept **mouth** harp or **mouth** bow; accept **oral** cavity; accept **jaw** harp]

<Karthik, Classical Music> [Ed. Strombeck]

7. In the Simons process, performing this technique yields fluorinated organic compounds. A type of this technique named for Kolbe removes a carboxyl group to form a dimer. Activation loss is graphed on a polarization curve to assess a type of this technique that uses a proton-exchange membrane. This technique forms an alkali hydroxide in the Castner-Kellner process. Q times M divided by v times F gives mass in (*) Faraday's law describing this technique. Alumina dissolved in molten cryolite undergoes this technique in the Hall-Héroult cell. Addition of standard electrode potentials determines the cathode and anode in this process, and it is used to split water into hydrogen and oxygen. For 10 points, name this technique that uses an electric current to drive a chemical reaction.

ANSWER: **electrolysis** [prompt on electrochemical reaction]

<Valan, Chemistry> [Ed. Lei]

7. According to Virgil, souls of the dead must drink from this river before they could be reincarnated. For 10 points each:

[M] Name this river which flows through the cave of Hypnos and whose waters can cause forgetfulness.

ANSWER: **Lethe**

[E] Lethe was one of the five rivers of this region in Greek mythology. This place where souls go after death is also commonly known by the name of its patron god, the husband of Persephone.

ANSWER: Greek **Underworld** [accept **Hades**]

[H] This king of Crete served as one of the three judges of the dead, judging the souls of Easterners. After being banished by his brother Minos, who also served as a judge of the dead, this man fled to Boeotia ("bee-OH-shuh") where he married Alcemene.

ANSWER: **Rhadamanthus**

<Groger, Mythology> [Edited]

8. Giant black rectangles appear behind pedestrians in a photo titled for a location whose name includes this feature. A photographer who shares a last name with these features paid homage to Manet's *Bar at the Folies-Bergère* with a photo of himself and a woman looking into a mirror titled *Picture for Women*. A street named for one of these features titles a 1915 photo by (*) Paul Strand. During the construction of one of these features, Peter Leibing depicted a soldier in mid-air in the photograph *Leap to Freedom*. That one of these features was the site of a painting reproducing a photo of Leonid Brezhnev and Erich Honecker kissing. For 10 points, name these architectural features, one of which is being torn down by civilians in a 1989 photo from Berlin.

ANSWER: **walls** [accept Jeff **Wall**; accept **Wall Street**; accept the Berlin **Wall**]

<Ashbrook, Photography> [Ed. Strombeck]

8. In one play, a maid claims that these beings have “ass-ass-ass-ass-in-at-ed” over seven hundred thousand citizens. For 10 points each:

[M] Name these beings whose rights are defended by the League of Humanity in one play. A man avoids death in that play because he “works his hands like” one of these beings.

ANSWER: **robots** [accept Rossum’s Universal **Robots**]

[E] The robots Primus and Helena develop human emotions in *R.U.R.*, a play by this Czech author of *The War With The Newts* who coined the word “robot.”

ANSWER: Karel **Čapek**

[H] In *R.U.R.*, Helena becomes disappointed when she discovers the species of flower named for her has this characteristic. Dr. Gall explains that the flowers have this characteristic because they are “cultivated – developed with artificial speed.”

ANSWER: they’re **sterile** [accept any answer indicating they **don’t reproduce**]

<Leahy, Drama> [Edited]

9. This city is home to the world’s largest triumphal arch, which is located at the base of its Moran Hill. One pyramid-shaped skyscraper in this city is named for a historic name of this city, which translates to “capital of willows.” The world’s second-largest stadium, the 1st of May Stadium, is located on this city’s Rungra Island, and hosts “Mass Games” as a part of the (*) Arirang Festival. Three hands holding a hammer, sickle, and calligraphy brush can be found at this city’s Monument to Party Founding. The tallest unoccupied building in the world is this city’s 105-story Ryugyong Hotel. This city is the largest on the Taedong River, whose eastern bank is home to this city’s Juche Tower. Kim il-Sung Square is located in, for 10 points, what capital city of North Korea?

ANSWER: **Pyeongyang**

<Sareddy/Prabhakar, Geography> [Ed. Prabhakar]

9. Ismail Gaspirali inspired one nationalist movement in this empire whose schools often emphasized literacy in native Turkic languages. For 10 points each:

[E] Name this empire where that movement, the Jadid movement, promoted modernizing reforms among its Muslim population. Gaspirali helped found the Union of Muslims in this empire’s capital of St. Petersburg.

ANSWER: **Russian** Empire

[H] Abdurauf Fitrat, who became one of the most prominent Jadid leaders while studying in Istanbul, was from this modern-day country. Reform-minded protestors in this country were killed in the 2005 Andijan Massacre.

ANSWER: **Uzbekistan**

[M] The Jadid movement was active among the Muslims of this mountain range in the Russian Empire. The Chechen Imam Shamil declared an imamate in this mountain range before it fell under Russian control.

ANSWER: **Caucasus** mountains

<Sareddy, World History> [Ed. Prabhakar]

10. A Banksy artwork on a wall in this location shows a man descending while holding onto the paper of a typewriter. In one work written at this location, the author accuses his lover of distracting him from his art before describing Christ as “just like a work of art.” The short sixth section of a poem titled after this location describes “a pit of shame” in which “lies a wretched man / Eaten by teeth of flame.” That poem claims that “the coward does it with a (*) kiss / the brave man with a sword!” in describing how “each man kills the thing he loves.” The letter “De Profundis” was written in this location by a poet who had earlier engaged in “the love that dare not speak its name,” the subject of a trial concerning his homosexual relationship with Lord Alfred Douglas. For 10 points, name this prison about which Oscar Wilde wrote a “Ballad.”

ANSWER: **Reading Gaol** (“redding jail”) [or **Reading Jail**; accept “The Ballad of **Reading Gaol**”; prompt on jails or prisons]

<Bowman, Poetry> [Ed. Leahy]

10. Arithmetic coding is used in this technique because it can represent a string as a single number by repeatedly partitioning the real number line from 0 to 1. For 10 points each:

[E] Name this type of process that encodes some information using fewer bits than before. zip files are created using the lossless form of this process.

ANSWER: data **compression**

[M] Zip bombs are designed to create this condition by unloading much more decompressed data than the system can handle. Some cyberattacks induce the distributed form of this condition by overloading the server with requests.

ANSWER: **denial of service** [or **DoS**; accept distributed **denial of service** or **DDoS**]

[H] JPEG files are compressed using this lossy compression technique, which uses only the even component of the Fourier transform. This technique was invented by Nasir Ahmed.

ANSWER: **discrete cosine transform** [or **DCT**; prompt on cosine transform]

<Lin, Computer Science> [Ed. Bowman]

11. A conservative group called the VVVD emerged to oppose this government after its western neighbor moved troops into its territory. The ultranationalist Organization Consul assassinated this government's foreign minister for signing one treaty. Owen D. Young crafted a program to provide financial relief to this government, which was targeted in a failed coup led by (*) Wolfgang Kapp. The Treaty of Rapallo was established between the Soviet Union and this government. The Beer Hall Putsch was an unsuccessful attempt to overthrow this government, whose final president was Paul von Hindenburg. For 10 points, name this government that ruled Germany between World War I and Adolf Hitler's rise to power.

ANSWER: **Weimar** Republic [accept **Weimar** Germany; prompt on Germany before mention]

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

11. Answer some questions about NFTs, for 10 points each.

[M] NFTs are collectible assets stored on blockchains such as this one, the most active one currently in use. Unlike Bitcoin-based blockchains, this blockchain uses smart contracts to track cryptocurrency and service transactions.

ANSWER: **Ethereum** [do NOT accept or prompt on just "Ether"]

[E] An NFT system called Top Shot allows users to buy and sell video "moments" of this sports league. The most expensive moment on the Top Shot market features LeBron James, an athlete in this league.

ANSWER: **NBA** [or **National Basketball Association**]

[H] In 2020, this science-fiction actor released a set of NFT trading cards themed around his various roles. This actor's music career features awkward spoken-word covers of "Lucy in the Sky with Diamonds" and "Rocket Man."

ANSWER: William **Shatner**

<Bowman, Other Academic> [Ed. Ashbrook]

12. A fictional Antebellum novel in this play called *In Love With the Night Mysterious* is explained as the source of the quote "real love isn't ambivalent." A man in this play wonders about the "sexual politics" of a flaming letter to a character that introduces themselves with four I's. That man in this play complains about the tackiness of a funeral for "one of the Great (*) Glitter Queens" to the nurse Belize. A lawyer in this play who claims to have liver cancer at risk of disbarment, dies after being sung a Yiddish lullaby by the ghost of Ethel Rosenberg. A man in this play climbs a ladder and wrestles one of the title figures after Louis Ironson separates from him due to his AIDS diagnosis. "Millennium Approaches" and "Perestroika" are the two sections of, for 10 points, what "Gay Fantasia on National Themes" by Tony Kushner?

ANSWER: **Angels in America** [anti-prompt on Millennium Approaches or Perestroika alone; accept either if said with *Angels in America*]

<Leahy, Drama> [Edited]

12. This laboratory technique uses pairs of proteins referred to as “bait” and “prey.” For 10 points each:

[H] Name this protein-fragment complementation assay that analyzes protein-protein interactions by binding proteins to the UAS and evaluating the transcription of a downstream reporter gene.

ANSWER: yeast **two-hybrid screening** [accept yeast **two-hybrid system** or **Y2H**]

[E] In two-hybrid screening, the “bait” is fused with the DNA-binding domain of “factors” that regulate this process. In this process, mRNA is created from template DNA.

ANSWER: **transcription** [or **transcription** factors, do NOT accept or prompt on “translation”]

[M] Two-hybrid screening is typically performed in yeast, which sexually reproduce using haploid mating types referred to as either A or this other letter.

ANSWER: **alpha**

<Lau, Biology> [Ed. Lei]

13. A two-part work in this medium features a family eating dinner at night on an apartment building’s rooftop as a young girl flies over the George Washington Bridge. Blue figures re-enact various stories from the Bible in an 1880s work in this medium by the ex-slave Harriet Powers. Cleve Jones organized a collaborative artwork in this medium with the (*) NAMES Project. Works in this medium including *Tar Beach* and *Who’s Afraid of Aunt Jemima?* were created by Faith Ringgold. That work, the largest ever community folk art project, was displayed several times on the National Mall to commemorate AIDS victims. For 10 points, name this medium made from decorating textiles with stitching and patchwork, which can also be used for bed coverings.

ANSWER: **quilts** [prompt on **cloth**]

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

13. This philosopher made the first *reductio ad absurdum* arguments to supposedly “prove” that motion does not actually exist. For 10 points each:

[E] Name this ancient philosopher who devised a series of paradoxes such as one asking whether or not Achilles can really beat a tortoise in a footrace.

ANSWER: **Zeno** [accept but do NOT otherwise reveal **Zeno** of Elea; do NOT accept or prompt on “Zeno of Citium”]

[M] Zeno was from this city that served as the site of a philosophical school led by Parmenides (“par-MEN-ih-dees”), who argued that everything in existence is “one” because “non-being” cannot exist.

ANSWER: **Elea** [accept the **Eleatic** School; accept **Velia**]

[H] Parmenides separated existence into two views of reality: the way of truth and the way of this concept. The way of truth describes how all of reality is one, whereas this way describes how our senses deceive us from the truth.

ANSWER: the way of **opinion** [accept the way of **appearance**; accept the way of **seeming**; accept the way of **mortals**; accept **Doxa**]

<Ashbrook, Philosophy> [Edited]

14. The first seadragon discovered in 150 years is named for this adjective. Turf-forming calcareous organisms described by this adjective alternate with invertebrate patches in rocky subtidal reefs. This adjective and pelagic describe the most common lithogenous sediment. Mangroves described by this adjective dominate the seaward part of their forests and display vivipary. This adjective describes Corallinales and organisms that produce carrageenans. This is the (*) color of the branchial plume in giant tube worms. Saxitoxin buildup from dinoflagellates can cause paralytic shellfish poisoning in humans due to events described by this color. Deep sea predators are dark-colored or this color because this visible color is most quickly filtered out as depth increases. For 10 points, name this color that describes algal blooms in namesake “tides.”

ANSWER: **red** [or **ruby**]

<Lei, Biology> [Edited]

14. Name some literary influences of the Cthulhu mythos, for 10 points each.

[E] Cthulhu is one of the many eldritch horrors created by this extremely racist New England author of *At The Mountains of Madness*.

ANSWER: H.P. **Lovecraft** [or Howard Phillips **Lovecraft**]

[M] Cthulhu scholar Robert M. Price claims Lovecraft borrowed many thematic elements from this author's "The Kraken." In another poem by this author, a character declares "I mete and dole / Unequal laws unto a savage race."

ANSWER: Alfred, Lord **Tennyson**

[H] Lovecraft may have also taken inspiration for the Cthulhu mythos from this short story, in which a man who notices the disappearance of water and milk from his bedroom is possessed by the title vampire.

ANSWER: "The **Horla**" [or "Le **Horla**"]

<Leahy, Short Fiction/Other> [Edited]

15. A theologian from this country explored the suffering and oppression of women in a work partially titled for the "Stubborn Daughters of Eve." This home country of Ivone Gebara ("ee-VOH-nay zhe-BAH-rah") is the origin of an evangelical church founded by Edir Macedo ("mah-SAY-doh") called the Universal Church of the Kingdom of God. Axé ("AH-say") music is from this country and inspired many dances of one holiday. It's not Chile, but the theologian (*) Leonardo Boff from this country is a major proponent of liberation theology. Catholicism was syncretized with traditional African religion in this country to form faiths like Candomblé ("kahn-dome-BLAY"). Parades characterize this country's Carnival celebration, which is the largest in the world. For 10 points, name this South American country with the world's largest population of Catholics.

ANSWER: **Brazil** [or the Federated Republic of **Brazil**; accept *República Federativa do **Brasil***]

<Prabhakar, Religion> [Ed. Ashbrook]

15. Answer the following about the multinational effort to observe the 1769 transit of Venus, for 10 points each.

[H] The French astronomer Jean-Baptiste Chappe d'Auteroche set up an observation site in this region of New Spain. This region had been previously explored by Francisco de Ulloa and Eusebio Kino.

ANSWER: **California** [accept **Baja California**; do NOT accept or prompt on "Alta California"]

[M] Another observation site was Tahiti, where this explorer brought scientists like Joseph Banks and Charles Green to track the transit. This explorer also brought the guide Tupaia during that same expedition.

ANSWER: James **Cook**

[E] Observation sites were set up across the Russian Empire under the patronage of this monarch. This "great" Russian empress corresponded with intellectuals of her era like Denis Diderot and Voltaire.

ANSWER: **Catherine** the Great [accept **Catherine** II]

<Prabhakar, Other History> [Edited]

16. Composer and type of work required. One of these works by this composer that was called "heroically tragic" by the biographer Alfred Einstein was revised to add in two clarinet parts. That late example of these works by this composer opens with divisi violas for one bar before a melody beginning with two repetitions of the notes [read slowly] "E-flat D D." One of these works by this composer named for its commissioner, the (*) Haffner family, preceded another named for its composer's visit to Prague. Johann Peter Salomon named the last one of these works for Jupiter, and that piece is labelled 551 in the Köchel catalogue. For 10 points, name this set of forty-one orchestral pieces, written by the composer of *The Magic Flute*.

ANSWER: **symphonies** by Wolfgang Amadeus **Mozart** [prompt on partial answer]

<Dantzer, Classical Music> [Ed. Strombeck]

16. One character in this profession is given his nickname by his caretaker Kiyo and travels to Matsuyama after his father's death. 10 points each:

[H] Name this profession held by that character, who befriends Porcupine and enters a conflict between Redshirt and Squash over a woman dubbed "Madonna."

ANSWER: middle-school **teacher** [accept math **teacher**; accept **sensei**]

[M] This Japanese author wrote about the title middle-school teacher in *Botchan*. The teacher Mr. Sneaze's pet drunkenly falls in a barrel and drowns in this author's novel *I Am A Cat*.

ANSWER: Natsume **Soseki**

[E] The cram school teacher Bird struggles to handle the news of his son's brain hernia in *A Personal Matter*, a novel by this other Japanese author of *The Silent Cry*.

ANSWER: Kenzaburo **Oe**

<Mehra, Long Fiction> [Ed. Leahy]

17. A maximum value for solutions to an equation named for this scientist is given by the Laplace limit; that equation only has transcendental solutions. A law named for this scientist can be proved by showing that the position vector is proportional to "one over one plus e cosine theta." An equation named for this scientist gives the relationship between the mean anomaly and eccentric anomaly. The LRL vector is used in problems named for this scientist in which (*) two bodies exert force on each other according to an inverse-square relationship. One law discovered by this scientist relates the square of the period to the cube of the radius, while another states that orbits sweep out equal area in equal time. For 10 points, name this scientist who names three laws of planetary motion.

ANSWER: Johannes **Kepler** [accept **Kepler**'s equation; accept **Kepler**'s laws of motion]

<Bowman, Physics> [Edited]

17. Pianist Bobby Timmons wrote the title track of this musician's album *Moanin'*. For 10 points each:

[H] Name this jazz drummer who founded the hard bop group The Jazz Messengers with Horace Silver.

ANSWER: Art **Blakey**

[M] This bandleader recorded a different "Moanin'" on his album *Blues & Roots*. This musician included sections calling for "Duet Solo Dancers" and "Group Dancers" in his album *The Black Saint and the Sinner Lady*.

ANSWER: Charles **Mingus** Jr.

[E] Charles Mingus played the upright variety of this jazz instrument. Along with piano and drums, this instrument forms a jazz rhythm section.

ANSWER: upright **bass** [accept string **bass**; accept double **bass**]

<Karthik, Jazz> [Ed. Strombeck]

18. Before they were sacked by the Normans, the cities of Corinth and Thebes were centers for the production of this good in the Byzantine Empire. The arrival of Huguenot refugees precipitated the production of this good in the London district of Spitalfields. The *canuts* of Lyon processed this good using a programmable machine invented by Joseph Marie Jacquard. One monopoly on this good's production was ended after two Nestorian (*) monks smuggled it on behalf of Justinian. This good's production apocryphally began under Empress Leizu in ancient China and relied on mulberry leaves. For 10 points, name this fabric produced from a certain insect that also names a trade route which connected Europe and the Far East.

ANSWER: **silk** [or **silk** clothes; prompt on **cloth** or **clothing** or **textiles**]

<Prabhakar, Other History> [Edited]

18. This being can “think like Albert Einstein” and “exercise the willpower of Mahatma Gandhi” according to the 2008 book *Nudge*. For 10 points each:

[H] Name this perfectly rational being contrasted with normal humans. Many Austrian school economists deride the existence of this type of being for having too much knowledge of market forecasting.

ANSWER: **homo economicus** [or **economic man**; accept **Econs**]

[M] The idea of *homo economicus* was attacked by Richard Thaler, who works in this field of economics that focuses on the factors influencing how people make market decisions.

ANSWER: **behavioral economics** [or **behavioural economics**]

[E] Thaler currently works at this university’s Booth School of Business. Milton Friedman led a school of economics named for this Midwest university.

ANSWER: University of **Chicago** [accept U**Chicago**]

<Nageswaran, Economics> [Edited]

19. After begging Apollo for protection before being sent to face the Minotaur, Theseus received one of these objects from the Acropolis. On Roman coins, both Eirene (“EYE-rih-nee”) and Mars Pacifier are depicted holding these objects in their right hands. After receiving one of these things, one man is instructed to “bring out...every creeping thing that creeps on the earth.” Birds carrying these objects signal the end of (*) floods to both Deucalion and Noah. In Christian iconography, the Holy Spirit is often depicted as a dove holding one of these objects in its beak. The winner of the ancient Olympic games would receive a wreath constructed from one of these objects. For 10 points, name these branches from a tree legendarily created by Athena to win a contest against Poseidon.

ANSWER: **olive branches** [accept **laurel branches** before "Theseus" is read; prompt on **branches**; prompt on **olive trees** with “which part of an olive tree?”; prompt on **olive leaves** with “olive leaves are from what larger objects”]
<Bowman, Mythology> [Ed. Groger]

19. This historian’s most famous work begins with a quote from Sophocles’ play *Ajax*. For 10 points each:

[H] Name this historian who documented events like the death of Robert Guiscard (“geese-CARD”) and the war with the Pechenegs in that work. This historian wrote that work after being exiled to a monastery for plotting a failed coup with Irene Doukaina (“DOO-ka-eeen-uh”).

ANSWER: **Anna Komnene** [accept **Comnena** in place of **Komnene**; prompt on partial answers]

[E] In the *Alexiad*, Anna Komnene discusses this event which began after her father Alexios I Komnenos requested military aid from Pope Urban II. This conflict ended in the capture of Jerusalem by Christian forces.

ANSWER: **First Crusade** [prompt on the **Crusades** or the **People’s Crusade** or the **German Crusade**]

[M] During his reign, Alexios I Komnenos put Anna in charge of one of these places servicing 10,000 people. Under Foulques de Villaret (“FOOLK duh veel-ah-RAY”), one organization named for these places seized Rhodes from the Byzantine Empire.

ANSWER: **hospitals** [accept **Knights Hospitaller**]

<Prabhakar, British/European History> [Edited]

20. In one story, a plaintiff describing how a character with this first name attempted to buy another’s rifle is stolen by that character’s brown sow; those two residents of Mirgorod feud after one calls another a “goose.” A character with this first name offers a policeman a free shave after he is seen dumping a package from St. Isaac’s Bridge. Two friends of a judge with this first name arrange to play bridge after his service but are interrupted by (*) Praskovya Fedorovna; those friends are Schwartz and Peter Ivanovich. A barber with this first name slices open a roll given to him by his wife Praskovya Osipovna only to find the title object of Nikolai Gogol’s “The Nose.” For 10 points, give this first name of a character tended to by Gerasim after he falls while hanging curtains, whose death is described in a Leo Tolstoy novella.

ANSWER: **Ivan** [accept **Ivan** Ivanovich; accept **Ivan** Fyodorovich; accept **Ivan** Yakovlevich; accept **Ivan** Ilyich]

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

20. Lenz's law states that the direction of this quantity induced by a magnetic field opposes the change in direction of the original magnetic field that induced it. For 10 points each:

[E] Name this quantity symbolized I which is equivalent to the rate of the flow of electric charge.

ANSWER: **current**

[M] The magnetic field generated by a current-carrying wire is represented by this equation. The line integral evaluated in this equation involves the cross product of $I d\mathbf{L}$ and the position vector all over r squared.

ANSWER: **Biot-Savart** ("BEE-oh suh-VAHR") law

[H] The Biot-Savart law is generalized by the second of these equations. These equations named for a Ukrainian physicist take relativistic effects and retarded time into account while calculating the electric and magnetic fields.

ANSWER: **Jefimenko**'s equations

<Nageswaran, Physics> [Ed. Bowman]
