

TOSSUPS

1. This man received an important command after a disgraceful treaty was signed by Gaius Hostilius Mancinus. Ruth Martin Brown argued that this man was at the center of a namesake intellectual “circle” including the writers Lucilius and Terence. During one battle, this general blockaded the Duero River with rotating logs embedded with spearheads, eventually forcing the besieged Celtiberians (kelt-“eye”-BEER-ee-ans) to commit mass suicide. This man’s longtime friend, the Greek historian Polybius, accompanied him on the siege of Numantia in Spain. Polybius reports that this man “shed tears” and said “a day will come when sacred Troy will perish” after deserters threw themselves onto a fire in the citadel of Byrsa at the end of a 146 B.C. siege. For 10 points, name the Roman general who destroyed Carthage in the Third Punic War, an adoptive grandson of the victor of the Second Punic War.

ANSWER: **Scipio Aemilianus** [or Publius Cornelius **Scipio Aemilianus** Africanus Numantinus; or **Scipio** Africanus the **Younger**; or **Scipio Minor**; or anything specifying the **younger Scipio**; prompt on **Scipio**; do not accept “Scipio Africanus”]

2. The Vedic sage Vasishtha described this action as worse than killing a learned Brahmana and banned Brahmins and Kshatriyas from doing it. Debates about whether it is forbidden in modern Catholicism focus on the scope of Benedict XIV’s 1745 encyclical *Vix Pervenit*. Ezekiel 18:13 states of someone who does this action that “his blood shall be upon him,” leading Jewish law to prohibit both *marbit* and *neshek*, two ways of doing it. In Islam, the *takaful*, *sukuk*, and most popularly, the *murabaha*, have arisen as halal alternatives to this practice, which is called *riba* and totally prohibited. Historically, Judaism and Christianity prohibited performing that practice only against fellow Jews and Christians, leading to the position of “court Jew” and the rise of the Rothschild family. For 10 points, name this practice which in modern Christianity has come to be defined as “usury” only when it occurs at high rates.

ANSWER: charging **interest** on a loan [or **usury** until it is read; prompt on **moneylending**]

3. This group wore silver pins shaped like battle standards inscribed with the quote “WITHOUT EXTINCTION IS LIBERTY” from Walt Whitman’s “By Blue Ontario’s Shore.” This group took refuge in Cameron House for two days after a crowd armed with guns took issue with a message ending “Take the beam out of your own eye.” Support for this group increased due to reports of how W.H. Whittaker ordered forty guards to smash them against iron beds or handcuff them to cell bars. Congressman Joseph Walsh gave a speech against this group ridiculing the “demands of some iron-jawed angels.” This group received repeated sentences of increasing duration for “obstructing traffic,” one of which landed them in the Occoquan Workhouse to endure the “Night of Terror.” Affiliated with Alice Paul’s National Women’s Party, this group protested for six days a week from 1917 to 1919 against the administration of “Kaiser Wilson.” For 10 points, name this first group to picket outside the White House, a group of protesters for women’s suffrage.

ANSWER: the **Silent Sentinels** [or the “**iron-jawed angels**” before it is read; prompt on **suffragettes**; prompt on the **National Women’s Party**]

4. Korpelevich’s (kor-PEH-leh-vich’s) extra-gradient method finds sequences that converge to these entities. Along with the hyperbolic property of orbits, a dynamical system must not have any connections between these entities for the system to be topologically stable, according to the Andronov-Pontryagin (pon-tree-AH-gin) criterion. In bifurcation theory, a periodic orbit colliding with one of these points will produce a homoclinic bifurcation. An extension of Laplace’s method continuously changes a contour integral to pass nearby these points to approximate integrals. The equation “ z equals “ x cubed” minus “three xy -squared” defines a “monkey” surface that is itself defined by one of these points, which correspond to indefinite Hessian matrices. These non-extremal objects have a derivative equal to zero. For 10 points, name these points at which a multi-vari-ate function simultaneously “curves up” and “curves down.”

ANSWER: **saddle** points [or **minimax** point; prompt on **stationary** point; prompt on **critical** points]

5. *Description acceptable.* In 2012, a seminal text on this phenomenon was criticized by James Forman, who cited Vanessa Barker's research on its "politics." Marie Gottschalk has criticized narrow focus on "non, non, nons" in public discourse on this phenomenon. This phenomenon grew in a "deadly symbiosis" enabled by post-Fordism in an analysis by Loic Wacquant (loh-EEK wah-kwahn), who appended "hyper-" to its common name. Its effects were analogized to a credentialing process in Devah Pager's account of a field experiment conducted in Milwaukee. It is the subject of a book that opens with a family history of Jarvis Cotton. Oft-cited contributors to this phenomenon include a "pipeline" in the educational system and a namesake "industrial complex" in the private sector. For 10 points, identify this social problem discussed in Michelle Alexander's *The New Jim Crow*, whose title refers to the United States' skyrocketing inmate population.

ANSWER: mass **incarceration** [or **imprisonment**; or anything mentioning **jail**; accept the **New Jim Crow** until "Jim"]

6. One player of this instrument published a book of scales and exercises and a book of fourteen etudes under the title *Jazz Technic*. Glenn Miller picked up arranger Jerry Gray after a player of this instrument dissolved his band and moved to Mexico. Joe Bishop co-wrote the song "Woodchopper's Ball" with a player of this instrument. Trumpeter Harry James started his career in a band led by a player of this instrument. A player of this instrument included songs like "Loch Lomond," "Bei mir bist du schoen" ("by" MEER biht doo SHERN), and "Swingtime in the Rockies" on his most famous album. Glenn Miller had Wilbur Schwartz play this instrument over four saxophones to create his distinctive sound. A player of this instrument scored a 1938 hit with his swing recording of Cole Porter's "Begin the Beguine." Another player of this instrument featured Gene Krupa's drums in a 1938 Carnegie Hall version of "Sing, Sing, Sing." For 10 points, name this instrument played by Woody Herman, Artie Shaw, and Benny Goodman.

ANSWER: **clarinets**

7. In this play, a man is instructed to crown bowls with freshly shorn wool before pouring out three drink-offerings from a holy spring and laying olive sprays on the wet ground. A chorus in this play declares, "Not to be born is best, but when a man has seen the light, the next best thing is to go back where he came from as fast as he can." This play provided the basis for T. S. Eliot's last play, *The Elder Statesman*. In this play, a man recognizes that his death is near after three successive peals of thunder and leads the way to his tomb. This play's protagonist trespasses on ground sacred to the Eumenides and curses his two sons who exiled him from his city when they both seek his aid in their civil war. In this play, Theseus rescues Ismene (iz-MEE-nee) from Creon's men and restores her to her blind suppliant father. For 10 points, name this play that makes up Sophocles's "Theban trilogy" along with *Antigone* and *Oedipus Rex*.

ANSWER: **Oedipus at Colonus** [or **Oedipus Coloneus**; or **Oidipous epi Colono**]

8. One passage in this text ponders the nature of a "thing," concluding that a deer, a beetle, or a blade of grass are not "things" but a stone and clod of earth are. It illustrates its idea of the "copy-relation" by reproducing C.F. Meyer's poem "The Roman Fountain" in its entirety. An imaginative reverie in this text evokes the "silent call of the earth, its silent gift of the ripening grain, its...self-refusal in the wintry field" to show that reliability is the nature of equipment. This text argues that truth arises out of the "strife between clearing and concealing in the opposition between World and Earth," and finds the essence of truth in the Greek word *aletheia* (ah-LEE-thee-ah), meaning "unconcealment." It largely deals with a concept called the *Ursprung* (OOR-shprung), literally meaning "primal leap." It asserts that, unlike in tools, "rock...becomes rock," "colors...shine," and "sounds...ring" in both a Greek temple and a van Gogh painting of shoes. For 10 points, name this essay on aesthetics by Martin Heidegger.

ANSWER: "The **Origin of the Work of Art**" [or "Der **Ursprung des Kunstwerkes**"]

9. This scientist is the namesake of a cosmological horizon that is equivalent to the event horizon of a Narai (nah-ree-"eye") black hole. The indefinite special orthogonal group S-O four-comma-one replaces the Poincaré (pwahn-kah-ray) group as the symmetry group of spacetime in an alternative theory of special relativity named for this scientist. He is the namesake of the maximally symmetric vacuum solution of the Einstein field equations that has a negative cosmological constant. Juan Maldacena showed that a gravitational theory on that type of space named for this scientist corresponds to a conformal field theory defined on its boundary. In general relativity, the presence of a non-rotating central mass requires a correction to the angular momentum of an orbiting body that is named for this scientist and is contrasted with frame dragging. For 10 points, identify this Dutch scientist who predicted the geodetic effect, which is also known as his namesake precession.

ANSWER: Willem **de Sitter** [accept **de Sitter** horizon or **de Sitter** invariant special relativity or anti-**de Sitter** space or **de Sitter** precession]

10. In one of this author's books, British women style their hair in either ringlets or spit curls to show support for the opposing sides of the Turkish-Serbian War. One of the title characters of that book meets the other at a cricket match, but marries a doctor and eventually opens a chain of Montessori schools. This novelist, who charted the lives of her parents had they never married in *Alfred and Emily*, served as a sort of surrogate mother to a teenaged Jenny Diski after rescuing her from a toxic home. She wrote a novel in which Tommy's failed suicide attempt leaves him blind and causes him to turn to the socialist causes embraced by his mother Molly. The protagonist of that novel writes a diary focusing on her dreams and therapy, a novel titled *Free Women*, and a memoir of her experience in Southern Rhodesia. For 10 points, name this author who wrote about the life and writings of Anna Wulf in *The Golden Notebook*.

ANSWER: Doris **Lessing**

11. In 2016, this specific animal's name was given to a newly discovered spaceship in Conway's Game of Life that is only 28 cells and is the first to move at a speed of c over ten. Lionel Barrymore plays a farmer who is personally recruited by Abraham Lincoln in a 1920 film named for this animal. To support Operation Bodyguard, Clifton James made a public appearance in Gibraltar disguised as Bernard Montgomery in an operation of this name. A political faction named for this animal included the namesake of *Ex Parte Milligan* and was associated with societies called the Order of the Sons of Liberty and the Order of American Knights, which were offshoots of the Knights of the Golden Circle. For 10 points, name this snake which lent its name of an Ohio-based faction of the Democratic party that advocated peace with the South and was led by Clement Vallandigham.

ANSWER: **copperhead** [or **copperhead spaceship**; or *The Copperhead*, or **Operation Copperhead**; prompt on snake]

12. In the *Metamorphoses*, this deity turns a race of horned men called the Cerastae (ker-ah-"sty") into bulls to punish their practice of human sacrifice. In the *Argonautica*, this deity narrates an *ekphrasis* describing a double-seamed golden ball overlaid with dark blue spirals. In the *Aeneid*, this deity interprets an omen of twelve swans that were scattered by an eagle but have now rejoined each other. In the *Iliad*, this deity listens to another deity tell stories such as the Aloadae imprisoning Ares in a jar and Heracles shooting an arrow into Hades' shoulder. In a Homeric Hymn to this deity, she claims to be a daughter of Otreus whom Hermes has abducted in order to seduce a man living on Mt. Ida in Phrygia ("fridge"-ee-ah). Zeus cripples that man with a thunderbolt after he brags about having sex with this deity, which is why her son has to carry him on his back during their escape from the sack of Troy. For 10 points, name this goddess, the mother of Aeneas.

ANSWER: **Aphrodite** [or **Venus**]

13. A poem titled for some of these objects recalls how a drowned friend's angers were "leached away by the soft archery of summer rains and the sponge-paws of wetness" and begins by describing "Time that is moved by little fidget wheels." Five of these objects title an influential blank verse elegy by Australian poet Kenneth Slessor. These objects "engrave membrane through marrow" in a poem whose speaker describes how one of them "dispatches" him "to wander...from pit to crucifix, feet chill on steps from hell." These objects break down the structure that contains them in Hart Crane's "The Broken Tower." Another poem describes the "sort of Runic rhyme" in which these silver, golden, brazen, and iron objects are "keeping time, time, time." For 10 points, name these objects, the subject of an obsessive Edgar Allan Poe poem about their "tintinnabulation."

ANSWER: **bells** [accept **bell**-rope; prompt on **rope**]

14. Carolyn Dean analyzed how the Corpus Christi festival in this modern-day country became a site of resistance as it syncretized with summer solstice celebrations. A rebellion in this modern-day country arose from the belief that spirits were possessing people with a "dancing sickness"; that rebellion, the Taki Unquy (oon-kwee), was based on worship of spirits of inanimate objects like rocks and trees. In this country, a set of reforms limited the number of workers who could be conscripted to one seventh of a village's population under Viceroy Francisco de Toledo. In this country, where traditional worship of *wakas* flourished, a rebel leader was forced to watch the execution of his wife Micaela Bastidas, then beheaded after a failed attempt to tear him apart with four horses. Exploitation of natives by *corregidores* ("core"-reg-ih-doh-"race") provoked the Tupac Amaru revolt in this modern-day country. For 10 points, name this country, a viceroyalty under the Spanish Empire that was also the heartland of the Inca.

ANSWER: Viceroyalty of **Peru**

15. *Note to players: composer and type of piece required.* In one of these pieces, a pianissimo *Un poco meno mosso* section begins with the right hand playing tenuto block chords over the left hand's rapid arpeggiated D dominant seventh chord. In that one of these pieces, both hands punctuate the opening phrases with quick triple repetitions of G minor chords consisting of two sixteenth notes followed by an eighth note. An *Agitato* section of one of these pieces begins with the right hand twice playing four triplets whose leading tenuto top notes are E, D-sharp, D-natural, C-sharp. A set of thirteen of these pieces concludes with pieces in G-sharp minor and D-flat major and makes up its composer's Opus 32. An *Alla marcia* one of these pieces in G minor is the fifth in their composer's Opus 23. An E-flat minor *Elegy* and E major *Melody* in the composer's *Morceaux de Fantaisie* ("more"-SOH deh FAHN-tah-ZEE) flank a wildly popular one of these pieces in C-sharp minor. For 10 points, name these pieces for solo piano by the composer of *Rhapsody on a Theme of Paganini*.

ANSWER: **preludes** by Sergei **Rachmaninoff** [prompt on **preludes** for piano]

16. The gene that encodes the protein deficient in this disease also encodes a protein that triggers glucose release from the liver, the protein as-pro-sin. A series of thumb signs used to diagnose this disease are known as the Ghent criteria. The protein implicated in this disease is normally responsible for sequestering TGF-beta and formation of elastic fibers. A common result of this syndrome is myx·o·ma·tous degeneration of the mitral valve leading to prolapse. The symptoms of this disease resemble those of Ehlers-Danlos (AY-lers dahn-lohs) syndrome, a similar connective tissue disorder. This autosomal recessive disorder is caused by a defect in a protein that surrounds elastin fibers known as fibrillin. For 10 points, name this disorder characterized by an especially tall and thin appearance.

ANSWER: **Marfan** syndrome [accept **MFS**]

17. In this century, 200 new monasteries were founded following the Hirsau Reforms devised by the monk William of Hirsau (rhymes with "BEER now"). During this century, Erlembald publicly smashed a cup consecrated by the palace chaplain Godefrey in a display of power for a lower-orders movement called the "ragpickers." During this century, Peter Damian enumerated the forms of sodomy in his *Liber Gomorrhianus* (go-moh-ree-AH-nus). The Patarene (PAH-tah-reen) movement took over Milan during this century, in which the bull *In Nomine Domini* (in NOH-mee-nay DOH-mee-nee) restricted papal elections to the College of Cardinals. During this century, "anti-king" Rudolf of Swabia's death at the Elster ended the Saxon rebellion, which was endorsed by a longtime ally of Matilda of Tuscany. The issuer of the *Dictatus Papae* (dik-TAH-tus PAH-"pie") sought to root out clerical marriage and simony with namesake "reforms" during this century, forcing a recalcitrant emperor to wait for him in a hairshirt in the snow. For 10 points, name this century in which Gregory VII initiated the Gregorian Reforms and Henry IV walked to Canossa.
ANSWER: **Eleventh** Century C.E. [or the **1000s** C.E.]

18. Particles of this element can be functionalized with RNA to modulate gene expression *in vivo* and are known as nano-beacons. *Bacillus licheniformis* (bah-SILL-us "lie"-ken-ih-FORM-iss) has been used to synthesize cubes of this element. An atom of this element bonded to a chlorine atom and tri-phenyl-phos-phine in the GarGoyle complex. The number of atoms in mono-dispersed, thi-o-late-protected clusters of this element exhibit a pattern of magic numbers. The ability of this element to form complexes with itself in solution via the relativistic expansion of its d orbitals is commonly used for molecular self-assembly. Extraction of this element from ore begins by complexing it with cyanide. It's not platinum, but a solution of nitric and hydrochloric acid used to dissolve this element is known as aqua regia. For 10 points, name this element found below silver on the periodic table.
ANSWER: **gold**

19. *Note to players: artist and type of work required.* Francis Bacon painted eight studies based on a destroyed example of one of these paintings, which depict a haunted zombie-figure with a shriveled shadow. A dedication scrawled "to my friend" is barely visible against a sea-green background at the top of one of these paintings in which the subject has shaved hair off the sides of his head. One of these paintings, which uses rings of Pointillist-inspired uniform brushstrokes to create radiating halos in the background, shows its subject in a grey felt hat. Another of these paintings depicts a faceless man laden with boxes walking past a field on the way to Tarascon. A famous painting from this group depicts its subject in a heavy green overcoat and a fur-lined hat standing in front of a woodblock print of geishas. A dark blue background contrasts sharply with the subject's fiery orange hair in one of these paintings made at Saint-Remy (sahnt-reh-MEE). For 10 points, name this series of paintings by a Post-Impressionist artist, including one showing its creator "with bandaged ear."
ANSWER: the **self-portraits** of Vincent **van Gogh**

20. A novel from this country begins with the protagonist recalling a shave he paid for with "the hard-earned coins of his jail life." That novel from this country ends with the protagonist "sagg[ing] down" after saying "I can feel it coming up under my feet, up my legs—." A novelist from this country wrote a series of journals that became the book *My Dateless Diary* while writing a novel whose story is told to Velan. A protagonist from this country falls in love with the dancer Rosie and possibly starves to death after being forced to fast to end a drought. The protagonist of a novel from this country loses three sons to a new tannery, is treated by the doctor Kenny, names her first daughter Irrawaddy, and is married to the farmer Nathan. The author of *Nectar in a Sieve* was from this country, as was a man who set novels including *The Painter of Signs* and *The Guide* in its fictional town of Malgudi (mal-GUH-dee). For 10 points, name this country home to Kamala Markandaya (mar-kahn-"DIE"-uh) and R. K. Narayan (nah-"RYE"-un).
ANSWER: Republic of **India** [or **Bharat** Ganarajya]

TB. Forces under this king lost a battle when they were flanked by a nobleman who only realized there was a battle going on because of the loud cannonfire. A rebellion against this king led to the death of the First Baron Saye and Sele ("say and seal"), but accomplished little else. The Battle of Formigny (for-min-yee) annulled the Treaty of Tours, in which this king failed to secure a dowry for his wife. The unpopularity of that treaty led to the banishment of his favorite advisor, William de la Pole, and the unsuccessful rebellion of Jack Cade. This king was deposed and fled to Scotland following the Battle of Towton. He had a mental breakdown after losing the city of Bordeaux, and reportedly spent the Second Battle of St. Albans laughing and singing. This husband of Margaret of Anjou was murdered after the Earl of Warwick's forces were defeated at the Battle of Tewkesbury. For 10 points name this king of England during the first phase of the Wars of the Roses, who was succeeded by Edward IV.

ANSWER: **Henry VI** [prompt on Henry]

1. An epistle to this man is the source of the phrase “the desire of money is the root of all evil.” For 10 points each:

[10] Name this addressee of two of the pastoral epistles of the New Testament. He is credited as Paul’s coauthor for the Epistle to the Philippians.

ANSWER: Saint **Timothy** [or **Timotheos**]

[10] Timothy is described as doing the “work of the lord” in the first Epistle to these people. That first epistle to these people contains phrases like “through a glass darkly,” “love is patient, love is kind,” and “all things to all men.”

ANSWER: **Corinthians**

[10] Second Timothy and First Corinthians are major sources for Paul’s use of *this* Greek word, which refers to both the act of preaching and the Christian message that’s preached.

ANSWER: **kerygmata** (keh-RIG-mah(-tah))

2. This modern-day country’s multilingual history is highlighted by the Myazedi inscription, which gives the legend of the governor Yazakumar in four different languages. For 10 points each:

[10] Name this modern-day country whose majority ethnicity is linguistically grouped with the Nuosu (noo-oh-soo) people and probably migrated from the north around the 10th century, causing disruption in power centers like the Arakanese city of Waithali (“why”-TAH-lee).

ANSWER: **Burma** [or **Myanmar**]

[10] Among the four languages in the Myazedi inscription is this Prakrit tongue, in which a “Canon” of Theravada scriptures, including the Tripitaka, were written.

ANSWER: **Pali** [or **Pali Canon**]

[10] Early Burma’s diverse peoples included this people, among the western Xirong (“she”-“wrong”) barbarians who were driven to the Tibetan plateau by the expansion of Qin. Their name is shared by a modern Chinese minority who call themselves Rma (“err”-mah) and mainly live in Sichuan province.

ANSWER: **Qiang** (chyang) [or **Qianq** zu]

3. A reaction of this type named for Arndt and Eistert begins by converting a carboxylic acid into a di-azo-ketone. For 10 points each:

[10] Name this general type of reaction which interconverts molecules in a series, usually by extending them by a carbon unit—for example, the conversion of eth·a·no·ic acid to pro·pa·no·ic acid.

ANSWER: **homologation** reaction [or **homologization**]

[10] In a synthesis named for Heinrich Kiliani and this man, an al·dose is extended by one carbon unit by first converting it into a cyan·o·hy·drin. He also names a projection used to visualize linear carbohydrates.

ANSWER: Hermann Emil Louis **Fischer**

[10] Aldehydes can be homologated by using meth·oxy·methyl·tri·phenyl·phos·phine in a variant of this reaction, which typically uses a phosphonium ylide (ILL-id) to convert carbonyls into alkenes.

ANSWER: **Wittig** reaction

4. This group operates an Instagram account that posts captions like “Small child who Power-Lifts with #sharpie_eyes” (“hashtag sharpie underscore eyes”) and “Is she straight-up squashing a bird?” to lampoon works of art. For 10 points each:

[10] Name this self-described “grassroots movement” organized by Max Geller that held a prominent protest outside the Boston Museum of Fine Arts in 2015. This group is dedicated to changing modern reception of a namesake French Impressionist.

ANSWER: **Renoir Sucks at Painting**

[10] Renoir sucked at painting this boring image of his friend Gustave Caillebotte (KYE-eh-“boat”) and a cohort of middle-class Parisians conversing over a meal at the Maison Fournaise.

ANSWER: **Luncheon of the Boating Party**

[10] Caillebotte himself painted this more interesting image of three shirtless, muscular workers stooped over at work remodeling a Parisian apartment.

ANSWER: *The Floor* **Scrapers** [or *The Floor* **Planers**; or *Les* **raboteurs** *de parquet*]

5. In a longitudinal study of babies born on Kauai, Emmy Werner examined children who displayed this trait. For 10 points each:

[10] Name this psychological trait first empirically studied by Norman Garmezy, who defined it as a person’s ability to successfully adapt to their environment despite threatening circumstances. According to George Bonnano, this trait allows people to overcome external adversity or trauma.

ANSWER: **resilience** [or **resiliency**]

[10] Resilient people often successfully cope with this phenomenon, which, like anxiety, can be reduced by meditation. People with Type A personalities tend to have higher-than-average levels of it.

ANSWER: **stress**

[10] Bruce McEwen coined this two-word term for the cumulative wear and tear that stress inflicts on the body. According to McEwen, it increases because of imbalances in hormones that mediate the nervous system’s response to stress.

ANSWER: **allostatic load**

6. This character appears “decked with gold” and gemstones in the vision of a man “stained with sins” and “wounded with wrongdoings.” For 10 points each:

[10] Name this character who narrates most of a poem in which he recalls how a young hero stripped and embraced him before a mocking crowd, after which “creation wept” as they stood together “wet with blood.”

ANSWER: the **rood** [or the **cross**]

[10] *The Dream of the Rood* is a poem written in this language used to compose an epic poem about a hero of the Geats preserved in the Nowell Codex.

ANSWER: **Old English** [or **Anglo-Saxon**; prompt on **English**]

[10] *Two answers required.* Old English verse is primarily alliterative, in contrast to most later English verse, in which metrical structures are created by preserving the number of one or both of these two things in a given line.

ANSWER: **stresses** and **syllables** [or **stressed** and **unstressed syllables**; or **accentual-syllabic** verse; or **accents** and **syllables**; prompt on **stresses**; prompt on **accents**; prompt on **syllables**]

7. The project “A Message from Earth” transmitted a radio signal to this star that will arrive in 2029. For 10 points each:

[10] Name this red dwarf about 20 light-years away from Earth, in the constellation Libra. It has three confirmed exoplanets detected via the radial velocity method, including the first Earth-like planet found in the habitable zone.

ANSWER: **Gliese 581** [do not accept answers that include letters like ‘b’ or ‘c’ – those are the planets, not the star]

[10] The OGLE and MOA (“ogle” and moh-ah) experiments detect exoplanets via this technique, in which the apparent brightness of a planet or star is amplified over a transient timescale because the angular separation is less than the Einstein radius.

ANSWER: gravitational **microlensing** [prompt on **gravitational lensing**]

[10] Another method for detecting exoplanets relies on observing the timing variation of these events. As opposed to occultations and eclipses, these events occur when a smaller celestial body partially obscures our view of a larger one.

ANSWER: **transits** [accept **transit** timing variation]

8. This book’s protagonist changes his name to Jack after Jack London, and he is caught stealing gasoline from the Welches with the statutory rapist Chuck Bolger. For 10 points each:

[10] Name this 1989 memoir about Jack’s tortured relationship with his cruel stepfather Dwight.

ANSWER: ***This Boy’s Life: A Memoir***

[10] *This Boy’s Life* was written by Tobias Wolff, whose experience as a paratrooper during this war informed his novella *The Barracks Thief*. Tim O’Brien’s *The Things They Carried* is set during this war.

ANSWER: **Vietnam** War

[10] Wolff made his impersonations of Robert Frost, Ayn Rand, and Ernest Hemingway the centerpieces of this 2003 novel, narrated by an autobiographical scholarship student at an elite preparatory institution that the three authors visit.

ANSWER: ***Old School***

9. This piece’s *Christe* (KREES-tay) borrows music from its composer’s *Missa Di dadi*, and its final *Kyrie* (KEE-ree-ay) features a repeated three-note motif constructed from the notes A-B-G. For 10 points each:

[10] Name this paraphrase mass, probably the final mass its composer wrote before his death in 1521. It was paired with the *Missa La sol fa re mi* in an acclaimed 1987 recording by The Tallis Scholars.

ANSWER: ***Missa Pange lingua*** (MISS-ah PAHN-gay LIN-gwah)

[10] The *Missa Pange lingua* was composed by Josquin des Prez (zhoh-SKAHN day pray), whose motets include several settings of this Latin prayer addressed to the mother of Jesus. The most famous melody paired with this prayer was composed by Schubert.

ANSWER: the **Ave Maria** [or the **Hail Mary**]

[10] A cyclic mass usually relies on one of these preexisting melodies as its unifying principle. The song “L’homme armé” (“LOAM” ar-MAY) served this role in many masses of the Renaissance, including two notable masses by Josquin des Prez.

ANSWER: **cantus firmus**

10. This author argued that French republican ideology abstracted away social difference, leading to the title oppressive ban, in her 2007 book *The Politics of the Veil*. For 10 points each:

[10] Name this feminist historian specializing in the history of France, who authored the article “Gender as a Useful Category of Analysis” in her book *Gender and the Politics of History*.

ANSWER: Joan Wallach **Scott** [or Joan **Wallach** Scott]

[10] In her book *Only Paradoxes to Offer*, Scott argued that French feminists simultaneously endorsed and challenged the “abstract citizen” ideal epitomized by this French revolutionary text, an articulation of liberal democracy passed in 1789 by the National Assembly.

ANSWER: **Declaration of the Rights of Man** and Citizen [or **Declaration des Droits de l’Homme** et du Citoyen]

[10] This woman examined French peasant culture in *Society and Culture in Early Modern France*, but is more famous for a case study of a villager impersonating a French peasant off at war, *The Return of Martin Guerre* (mahr-tahn gehr).

ANSWER: Natalie Zemon **Davis**

11. In this film, shots of a superior officer kicking away a water canteen and slapping the offending soldier are followed by a slow-motion shot of the soldier punching him, for which he is abandoned in the desert with a defective compass. For 10 points each:

[10] Name this film by Claire Denis (deh-NEE) that was loosely inspired by *Billy Budd*. It depicts members of the French Foreign Legion in Djibouti.

ANSWER: **Beau travail** (BOH trah-VYE-yuh)

[10] Denis worked on *Beau travail* with longtime collaborator Agnes Godard, a member of this profession. Other members of this profession include Rainer Werner Fassbinder collaborator Michael Ballhaus and Ingmar Bergman collaborator Sven Nykvist.

ANSWER: **cinematographer** [or **director of photography**; or **DP**]

[10] Cinematographer Gregg Toland is most famous for helping Orson Welles achieve virtuosic shots employing deep focus and unusual lighting effects in this 1941 film.

ANSWER: **Citizen Kane**

12. During this battle, a sudden fog caused Lord Montague's men to mistake the Earl of Oxford's banner, resulting in a disastrous incident of friendly fire. For 10 points each:

[10] Name this battle at which the Earl of Warwick, after agreeing to fight on foot, was killed in retreat. This 1471 battle was a crushing victory for Edward IV in the Wars of the Roses.

ANSWER: Battle of **Barnet**

[10] The Earl of Warwick partly broke with Edward IV over Edward's decision to seek an alliance with this duchy. Prior to the Battle of Barnet, Edward IV raised an army with money from its duke Charles the Bold.

ANSWER: **Burgundy**

[10] This mistress of Edward IV helped arrange an alliance between the Hastings and Woodvilles after the king's death, and was subsequently forced by Richard III to walk the streets of London in a petticoat as penance.

ANSWER: Jane **Shore**

13. The term "purple prose" is derived from this poet's didactic *Ars Poetica*. For 10 points each:

[10] Name this Roman poet whose odes dedicated to his patron Maecenas coined such phrases as "Nunc est bibendum."

ANSWER: **Horace** [or Quintus **Horatius** Flaccus]

[10] This Horace poem, a prayer addressed to Phoebus and Diana, was commissioned by Augustus in 17 BC for the opening ceremony of a festival of games.

ANSWER: **Carmen Saeculare** [or **Secular Hymn**; or **Song of the Ages**]

[10] This recurring witch in Horace's poetry is observed by Priapus conducting hellish rites on the Esquiline Hill with her accomplice Sagana in *Satire* 1.8. In the last of the *Epodes*, Horace offers her a lavish retraction and prayer for mercy, which she sardonically denies.

ANSWER: **Canidia**

14. This term was coined by John Foster Dulles to describe a strategy for blocking Chinese expansion. For 10 points each:

[10] Give this term for a series of strategically important landmasses stretching from the Kuril Islands in the northeast to Borneo in the southwest, including the Japanese mainland and the Ryukyu Islands along the way.

ANSWER: **first island chain** [prompt on partial answer]

[10] The first island chain encloses this marginal sea east of Vietnam and west of the Philippines, whose disputed territories include the Spratly Islands and the Scarborough Shoal.

ANSWER: **South China** Sea [do not accept or prompt on "China Sea" or "East China Sea"]

[10] While most islands in the South China Sea are uninhabited, this island south of the Leizhou Peninsula is home to nearly nine million people, including over a million from the Li ethnic group.

ANSWER: **Hainan** ("high"-nahn) Island

15. Certain species of insect like the *Trichogramma* wasp are so dependent upon members of this genus of bacteria to reproduce to where they are unable to do so in their absence. For 10 points each:

[10] Name this genus of parasites that infects a vast array of insects and alters their reproductive capacities and sex ratio. Strains of this genus like w-Mel-Pop are being tested for their use in a gene drive to combat malaria and dengue (den-gay) fever.

ANSWER: ***Wolbachia*** (wohl-BAHK-ee-ah)

[10] Strains of *Wolbachia* have been engineered to prevent the reproduction these insects, which are the vectors for dengue fever and malaria.

ANSWER: **mosquitoes**

[10] Gene drives rely on this technology. In February 2017, a court awarded a patent for the use of this technology in eukaryotic cells to Feng Zhang and the Broad Institute over Jennifer Doudna (dohd-nah) and UC Berkeley.

ANSWER: **CRISPR/Cas9** ("crisper")

16. This rule originated from a case in which the Second Circuit Court of Appeals ruled that Carroll Towing Company was responsible for not putting an attendant on the *Anna C*, which sunk after a readjustment of mooring lines. For 10 points each:

[10] Give this formula, also known as the calculus of negligence, which gives the conditions under which a defendant has duty of care.

ANSWER: **PL > B** [or **probability** of loss **times** gravity of **loss** is **greater** than **burden**; or the **Hand** rule; or the **Hand** formula; accept **cost** or **C** instead of burden; accept reasonable equivalents]

[10] Hand's formula is an example of the use of this other branch of study in legal analysis, since the formula relies on Coase's theorem. The use of this branch of study in law was pioneered by Ronald Coase and colleagues.

ANSWER: **economics** [accept **economic** analysis of law; accept law and **economics**]

[10] This colleague of Richard Posner on the Seventh Circuit Court of Appeals is a major figure in the law and economics movement, for which he authored *The Economic Structure of Corporate Law* with Daniel Fischel.

ANSWER: Frank **Easterbrook**

17. MARFEs occur due to thermal condensation in these devices, which are governed by the Goldston scaling law in the low-density Ohmic (oh-mik) regime. For 10 points each:

[10] Name these devices that suffer from instabilities that include the edge-localized and resistive ballooning modes. Alternatives to these devices include stellarators and Z-pinches.

ANSWER: **tokamaks**

[10] This quasi-periodic relaxation phenomenon causes a sudden temperature decrease in the core of a tokamak. The Kadomtsev model explains this phenomenon in terms of resistive magnetic reconnection inside the region where the safety factor is less than one, although the Wesson model is more accurate at higher values of the Lundquist number.

ANSWER: **sawtooth** crash [or **sawteeth**]

[10] Tokamak efficiency is expressed in terms of a parameter denoted by this letter that equals plasma pressure over magnetic pressure. This letter denotes a type of radioactive decay that converts a neutron to a proton and an electron.

ANSWER: **beta** [accept normalized **beta** or **beta**-minus decay]

18. This book claims that scientific specialists adopt the same "barbaric" attitude as ignoramus when it comes to other sciences or politics. For 10 points each:

[10] Name this 1932 book, which claims that the political and technological innovations of the 19th century enabled the title vulgar condition, which adopts the "psychology of the spoiled child" towards quality.

ANSWER: *The **Revolt of the Masses*** [or *La **rebelión de las masas***]

[10] In *The Revolt of the Masses*, Ortega y Gasset argues that the revolt of mass man is most violently exercised through this construct, which Max Weber defined as having a monopoly on violence.

ANSWER: the **State**

[10] This social critic adapted Ortega's thesis to claim that an American "revolt of the elites" was eroding democracy. His book *The Minimal Self* elaborates on one his earlier works, which criticizes professional parenting experts for eroding away familial relations, creating its title social condition.

ANSWER: Christopher **Lasch** (that book is his *The Culture of Narcissism*)

19. Answer the following about the history of early 19th-century Kentucky, for 10 points each.

[10] In 1801, 20,000 people participated in the wild Cane Ridge Revival as part of this larger cultural movement. Other representatives of this movement included Charles Finney, who preached in the “burned-over district.”

ANSWER: **Second Great Awakening** [prompt on the Great Awakening]

[10] Many early 19th-century Kentucky houses were built in this then-popular architectural style, a version of Neoclassicism represented by Nicholas Biddle’s Andalusia estate and Berlin’s Brandenburg Gate.

ANSWER: **Greek Revival** architecture

[10] Cassius Clay, Francis Blair, and Albert Sidney Johnston all graduated from this landmark Kentucky university, named after a “purchase” conducted with Chief Oconostota at Sycamore Shoals.

ANSWER: **Transylvania** University

20. For 10 points, answer the following about indigenous literatures.

[10] The most prominent writer of this ethnic group wrote the memoir *Our Land Was a Forest*, as well as collections of *yukar*, this people’s oral sagas and legends.

ANSWER: **Ainu** (“EYE”-noo) [prompt on indigenous Japanese]

[10] This other indigenous group has produced contemporary authors such as Kim Scott and Tara June Winch. In a 1972 novel, a member of this indigenous group goes on a murderous rampage beginning with the Newby women and the schoolmistress Petra Graf.

ANSWER: **Australian Aborigines** [or **Aboriginal Australians**; prompt on Australians; prompt on aborigines]

[10] This Native American writer described the despair and poverty rampant within Indian communities in works such as *The Lone Ranger and Tonto Fistfight in Heaven* and *Reservation Blues*.

ANSWER: Sherman **Alexie** [or Sherman Joseph **Alexie**, Jr.]