

2019 Terrapin: Come on Angel, Come and Save Us

Packet 13

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Tossups

1. **The speaker of a poem by this author imagines being given things like “The Mountains” and “The Motions of the Dipping Birds” to “look at when I liked.” A 2018 film by Madeleine Olnek is titled for a poem by this author that ends with the controversially erotic line “might I but moor tonight in thee!” and exclaims “Done with the Compass – / Done with the Chart!” This author also wrote a poem that states “They might as wise have lodged a (*) Bird / For Treason – in the Pound” in recalling how “They shut me up in Prose.” This poet of “Wild Nights! Wild Nights!” described signing away “What portion of me be / Assignable” before a moment when “the King / Be witnessed – In the Room.” For 10 points, the line “The Stillness in the Room” appears in the poem “I heard a Fly buzz – when I died” by what reclusive New England poet?**

ANSWER: Emily **Dickinson**

<JH, American Literature>

2. **One class of proteins that undergoes this process is named for binding to bilirubin. The intercalating agent propidium iodide is an example of a molecule that undergoes this process, which “activates” cell sorting in flow cytometry. The DNA binding (*) DAPI stain can undergo this process and is commonly used to identify cell nuclei in techniques including PALM and STED. A form of microscopy that achieves deeper penetration depth than confocal microscopy uses a dye that undergoes a two-photon form of this process. This process occurs in a protein with a beta-barrel motif and was derived from the jellyfish *Aequorea victoria*. For 10 points, name this process in which electromagnetic radiation is absorbed and emitted as light at a lower energy.**

ANSWER: **fluorescence** [or bio**fluorescence**; do not accept “luminescence” or “bioluminescence”]

<SY, Biology>

3. **During this dynasty, Qín Jiǔsháo (“cheen j’yoh-shao”) wrote the *Mathematical Treatise in Nine Sections* featuring methods for solving polynomials of up to the 14th degree. This dynasty’s court made use of pottery with crackled glaze called *guān* (“gwen”) wear, and during its rule the Lóngquán (“long-ch’wen”) kilns began to produce celadon pottery. This dynasty’s first emperor, Zhào Kuāngyìn (“jao kwong-yeen”), took power after overthrowing the Later Zhōu (“joe”) in the capital of (*) Kāifēng (“kye-fung”). This dynasty fell after its decisive defeat during the naval Battle of Yámén (“ya-mun”). Technological inventions that took place during this dynasty include movable type and gunpowder weapons. For 10 points, name this dynasty whose “Southern” period came to an end after a Kublai Khan-led Mongol invasion replaced it with the Yuán (“y’wen”) Dynasty.**

ANSWER: **Song** Dynasty [or **Sòng** Dynasty]

<JS, World History>

4. **This composer wrote the virtuoso sacred motet “In furore iustissimae irae.” A 12-section choral work by this composer opens with trumpet, oboe, and strings leaping between two octave Ds in a low–high–low–low pattern and was lost until the 1920s. Cellos open a piece by this composer with a bar of slow staccato eighth notes on F, then higher strings join in each successive bar to build up the chord F, G, D-flat, and B-flat with quick mordents. In 1939, Alfredo Casella popularized this composer’s setting of the (*) *Gloria* in D major. This composer’s Mandolin Concerto in C major is often paired with four concerti grossi he published with sonnets. Rapid ascending minor scales and tremolos depict thunderstorms in the first two works in this composer’s collection *The Contest Between Harmony and Invention*. For 10 points, name this Italian Baroque composer of *The Four Seasons*.**

ANSWER: Antonio Vivaldi
<AE, Classical Music>

5. **This character is perturbed when the lice he eats make less of a sound than those eaten by a bewhiskered man. This character is saved from a dog when one of the four turnips he had just stolen falls and startles it. A man yells “turtle’s egg!” while beating up this character for throwing himself at a maid’s feet and asking her to sleep with him. That occurs because this character frequently thinks “Woman...” after he is cursed to be sonless by a little (*) nun whom he accuses of being intimate with a priest. This character antagonizes a man who went to another country and lost his ponytail by calling him a “Foreign Imitation Devil.” This man calls himself an insect and slaps himself in the face to turn his defeats into “spiritual victories.”** For 10 points, name this bumbling character who titles a “True Story” by Lu Xun (“loo shwin”).

ANSWER: **Ah Q** [accept “The True Story of Ah Q”]
<VS, World/Other Literature>

6. **This thinker characterized theories as claims about the existence of observable events, which he called “basic statements.” In his work on quantum mechanics, he argued that probabilities are properties of experiments, pioneering the propensity interpretation of probability. He argued that both Marxist theories of history and Freudian psychoanalysis were pseudoscientific because they failed to make “bold” predictions. Paul (*) Feyerabend (“FYE-ur-AH-bint”) criticized this thinker’s view that science is deductive, not inductive. In his best-known work, this author of *Conjectures and Refutations* rejected verifiability as a suitable criterion of demarcation. For 10 points, name this philosopher who argued that scientific theories are falsifiable in *The Logic of Scientific Discovery*.**

ANSWER: Karl Popper
<CK, Philosophy>

7. **This molecule and tricyclohexylphosphine (“tri-cyclo-hexyl-phosphine”) bind to nickel in the square-planar Aresta’s complex. In a process that chemists have recently catalyzed with polystyrene beads, magnesite forms from olivine in the presence of this compound. Before the advent of Freon, ammonia and this molecule were the two dominant refrigerants. A type of high-power continuous wave laser that operates at wavelengths around 10 microns uses a gas of this molecule for its gain medium. This molecule is an alternative to organic solvents as a (*) supercritical fluid. Bending and asymmetric stretching modes make this linear molecule a strong IR absorber. This compound reacts with water to form carbonic acid, meaning that it causes ocean acidification. For 10 points, name this triatomic, carbon-containing molecule, a product of combustion and a greenhouse gas.**

ANSWER: **carbon dioxide** [or CO₂]
<GR, Chemistry>

8. **A prayer from this book frequently repeats the refrain “sing praise to him and highly exalt him forever” after calling on God’s various creations to bless the Lord. That prayer is found in a passage in this book named after Azariah and the “Three Holy Children,” which Protestants regard as apocryphal. Another apocryphal passage in this book involves two elders who bear false witness and attempt to rape a young woman named (*) Susanna. This book’s narrator has a vision of four beasts coming out of the sea and a judgement being issued by the Ancient of Days. This book’s namesake prophet interprets the “writing on the wall” during Belshazzar’s feast. For 10 points, name this book of the Hebrew Bible in which the titular prophet survives being thrown in a lion’s den.**

ANSWER: Book of Daniel
<WC, Religion>

9. **In *The Making of the English Working Class*, E. P. Thompson described a political myth about freedom before this monarch and his “armed banditti.” A succession dispute between two of this monarch’s sons was**

resolved by the Treaty of Alton, by which the elder son abandoned his claim. Pope Alexander II gave his blessing to a campaign planned by this monarch at his castle of Lillebonne. This monarch carried out massacres in (*) Northumbria to suppress a rebellion led by Edgar the Atheling as part of this monarch's "Harrying of the North." This monarch, whose survey of his holdings resulted in the Domesday Book, defeated the housecarls of Harold Godwinson in 1066 during the Battle of Hastings. For 10 points, name this first Norman king of England.

ANSWER: **William the Conqueror** [or **William I**; or **William the Bastard**]

<AE, European History>

10. In a play by this author, a man believes that he is watching the murder of his prodigal son, but finds out that his son is acting in a play. That play, which is framed as a vision conjured by a cave-dwelling magician, was adapted by Tony Kushner in 2002. In another play by this author, the title character is told that "He who can outlive / His father's honour's an unworthy son" as he confronts a man who insulted his father for using intrigue to become the royal tutor. That play was targeted in a (*) pamphlet campaign that led Jean Chapelain ("shap-LANN") to condemn this author of *The Comic Illusion* for violating the three unities. He wrote a tragicomedy about a knight who kills Don Gomés, the father of his lover Chimène ("shee-MEN"), then reconciles with her after fighting off a Moorish invasion. For 10 points, name this French playwright of *Le Cid*.

ANSWER: Pierre **Corneille** ("cor-NAY")

<WC, European Literature>

11. Immediately after the implementation of this legislation, the activist Max Schrems and his NYOB organization launched 8.8 billion dollars of lawsuits based on this legislation. Owen Williams created a website called this legislation's "Wall of Shame" to call out companies that comply poorly with this legislation. Article 25 of this legislation calls for companies to incorporate (*) "privacy by design" and "privacy by default." This legislation establishes a "right to be forgotten," meaning that individuals are entitled to ask companies to erase their personal data. In January 2019, the CNIL levied an 80-million-dollar fine on Google for failing to comply with this legislation. For 10 points, name this recent EU legislation that sets the EU's rules for data protection.

ANSWER: **GDPR** [or **General Data Protection Regulation**; prompt on answers that mention the EU or European Union privacy law or legislation, such as EU privacy regulations, EU data regulations, EU internet regulations, etc.]

<WC, Other>

12. A player of this instrument collaborated with Philip Glass on the album *Passages*. Electric versions of this instrument rely on a "buzz bridge." At the 1966 Bath Music Festival, a virtuoso of this instrument recorded the album *East Meets West* with Yehudi Menuhin ("yeh-HOO-dee MEN-yoo-in"). In order to play an extra seven semitones, players bend a string across this instrument's movable arched frets in a technique called *meend*. This instrument's three primary strokes are named (*) *da*, *ra*, and *dir*, and its sympathetic strings must be retuned to play different *ragas*. The Beatles' George Harrison studied under the best-known player of this instrument who composed the score for Satyajit Ray's *Apu Trilogy*. Ravi Shankar popularized, for 10 points, what droning gourd-shaped Hindustani instrument?

ANSWER: **sitar**

<CK, Other Arts>

13. In September 2017, IceCube detected a high-energy neutrino produced by one of these objects, TSX 0506+056. Highly variable examples of these objects are in a subclass named for BL Lacertae that have relatively flat spectra with significant optical polarization. These objects have nonthermal spectra, and one type of these objects has two classes distinguished by the presence of broad emission lines indicating diffuse gas. LINERs ("liners") are a similar type of these objects that show strong lines from ionized species. Unusually broad emission lines characterize a radio-quiet type of these objects exemplified by M77 and discovered by (*) Seyfert. Relativistic jets form at the poles of an accretion disk in these objects, which have a

supermassive black hole at their center. For 10 points, name these bright objects at the center of galaxies, including blazars and quasars.

ANSWER: active galactic nuclei [or AGNs; accept BL Lacertae objects until read; anti-prompt on Seyfert galaxies or quasars or blazars until read; accept quasars until “BL Lacertae” is read]

<GR, Other Science: Astronomy>

14. **A general from this family took command of the artillery at the Battle of Nezib after the Ottoman commander Ibrahim Pasha refused to listen to any of his advice. That general from this family developed a system to increase his subordinates’ autonomy by giving them “general directives” instead of specific commands. That general from this family also encouraged the use of (*) *kriegsspiel* (“KREEGS-shpeel”), or wargames, as part of officer training for the General Staff. Another general from this family attempted to implement the Schlieffen Plan and resigned following the failure of the Marne Campaign. For 10 points, name this family that produced two generals named Helmuth: “the Elder” who led Prussia in the Seven Weeks’ War and “the Younger” who led Germany in World War I.**

ANSWER: von Moltke family [accept Helmuth von Moltke the Elder or Helmuth von Moltke the Younger]

<AE, European History>

15. **This system is modeled as purely attentional in Cowan’s embedded-processes model. Uttering something irrelevant inhibits this system in an effect called articulatory suppression. Information is added to this system in maintenance rehearsal, but *not* elaborative rehearsal. Baddeley and Hitch created a model of this system in which it is divided into a “central executive” that controls a (*) “visuo-spatial sketchpad” and a “phonological loop.” The effort used by this system is termed cognitive load, and research has found that children with ADHD have impaired frontal lobes leading to deficits in this system. A strategy called “chunking” can improve this system’s capacity, which George Miller argued is the “magic number” seven plus-or-minus two. For 10 points, name this cognitive system that temporarily stores and manipulates information.**

ANSWER: working memory [prompt on memory or short-term memory]

<CK, Social Science>

16. **In a story from this collection, a character is scolded for reading *The Apache Chief* instead of studying Roman history. This collection includes a story whose protagonist angrily shouts “Stop!” when his infant son begins to cry after he reads a Byron poem aloud. In another story, the narrator skips school and meets a strange man who describes whipping little boys for having sweethearts. In addition to depicting Little Chandler in “A (*) Little Cloud,” it includes a story whose narrator visits a porcelain stall run by a proprietress who is preoccupied flirting with two Englishmen. That story’s narrator goes to a bazaar, but fails to purchase a gift for Mangan’s sister. For 10 points, name this collection that includes “An Encounter” and “Araby,” written by James Joyce.**

ANSWER: Dubliners

<CK, British Literature>

17. **After King Dagnus sent the beautiful sisters Nicaea and Aquilina to seduce this saint, he converted the sisters instead. He’s not St. Sebastian, but when forty knights fired arrows at this saint, the arrows hovered in the air around him, and an arrow flew back into the eye of King Dagnus. This saint served a cruel knight who claimed to be the devil while trying to fulfill his desire to seek and serve the (*) greatest prince in the world. Byzantine artists misunderstood his “Canaanite” origin to mean “canine,” so they depicted this saint as dog-headed. This saint felt the weight of the world on his shoulder and almost drowned as he carried a child across a river. For 10 points, name this patron saint of travelers who legendarily carried the Christ Child, hence his Greek name, “Christ-Bearer.”**

ANSWER: St. Christopher [or Reprobus]

<WC, Mythology>

18. Anderson developed a model of antiferromagnetic spins on a triangular lattice whose ground state is described with this word. Quasiparticles called spinons and chargeons propagate separately due to spin charge separation in a one-dimensional model described by this word that was first proposed by Tomonaga. That model contrasts with a more general model described by this word where interacting fermions form quasiparticles. That model, used to describe interacting electrons in a metal as one these things, was developed by Landau. The semi-empirical (*) mass formula is based on a model described by this word includes that includes separate volume energy and surface energy terms. That model describes atomic nuclei as “this word” drops. For 10 points, name this word that emphasizes disordered systems, named for a phase of matter contrasted with weakly interacting gases.

ANSWER: **liquid**s [accept spin **liquid** or Luttinger **liquid** model or **liquid** drop model or (Landau) Fermi **liquid**; accept “quantum” in front of any preceding answers]

<GR, Physics>

19. In a 2017 op-ed, Heather Ann Thompson showed that before this event, Dr. Michael Bandriss had conducted secret human experiments on leprosy; that op-ed followed the book *Blood on the Water* about this event. During this event, L. D. Barkley gave a speech declaring “We are men! We are not beasts and do not intend to be beaten or driven as such.” Russell Oswald represented the government in crisis (*) negotiations during this event. Frank “Big Black” Smith served as a leader during this event that saw over a thousand people gather in the D Yard. 38 people died in this event after Nelson Rockefeller ordered state police to retake the prison where this event took place. For 10 points, name this September 1971 riot in which prisoners took over a prison in upstate New York.

ANSWER: **Attica** Prison riot

<AE, American History>

20. A painting titled for this country includes a broken tree shrine and two miniscule salamanders representing evil. The artist’s time working for Mehmed II inspired a painting set in this country that depicts a giraffe and a camel in a public square where a group of seated, white-hooded figures listen to a saint preach; that painting is by Gentile (“jen-TEE-lay”) Bellini. A painting inspired by Joachim Patinir (“YO-ah-kheem PAH-tee-neer”) by Bruegel and a lunette by Annibale Carracci (“ah-NEE-ba-lay ka-RAH-chee”) are among the best-known treatments of a (*) scene titled for this country. Early adopters of landscape painting often treated that scene titled for this country, one variant of which typically depicts a resting donkey, Mary, and Joseph. For 10 points, Renaissance artists often depicted the Biblical “flight into” what country?

ANSWER: **Egypt** [accept flight into **Egypt**]

<JH, Painting & Sculpture>

Bonuses

1. Detractors of this politician called him a “Hebrew with Egyptian principles” for his staunch defense of the legality of slavery. For 10 points each:

[10] Name this politician who was the first self-professed Jew to be elected to the Senate. After the Civil War, he fled to England, became a barrister, and wrote the influential *Treatise on the Law of Sale of Personal Property*.

ANSWER: Judah P. **Benjamin** [or Judah Philip **Benjamin**]

[10] This Confederate president, a former Secretary of War under Franklin Pierce, appointed Benjamin as the first Attorney General of the Confederacy.

ANSWER: Jefferson **Davis**

[10] Benjamin was a senator from this state. Benjamin Butler issued the “Woman Order,” which instructed soldiers to treat women who insulted them as prostitutes, after he and David Farragut captured this state’s largest city.

ANSWER: **Louisiana**

<AP, American History>

2. In 2001, John T. Wearner and Saul Pleeter attempted to estimate this quantity using data from the military drawdown program of the early 1990s, obtaining estimates ranging from 0 to over 30 percent. For 10 points each:

[10] Name this quantity used to determine the present value of income in the future, by dividing the future income by the sum of one plus this quantity, [pause] raised to the power of t , where t is the number of time periods in the future.

ANSWER: **discount** rate [or **discount** factor; accept **discounting**]

[10] This discounting model, proposed by David Laibson in 1997, introduces time-inconsistency by having agents discount at a rate β times δ for the very next time period, but at a rate δ for each period after that.

ANSWER: **quasi-hyperbolic** discounting [prompt on **hyperbolic** discounting]

[10] Time-inconsistency can lead to this behavior in which individuals repeatedly incur small losses in order to delay a large, upfront cost. For example, an economic agent might repeatedly delay editing a quizbowl tournament a week before the first mirror.

ANSWER: **procrastination** [or **procrastinating** or **procrastinate**; prompt on **laziness** or **lazy** or other synonyms]

<WC, Social Science>

3. This group of people are “dazzled” by “rings sparkling with magnificent emeralds” and “elegant canes / beautifully worked in silver and gold.” For 10 points each:

[10] Name this group of people “due here today” who “are bored by rhetoric and public speaking” in a poem that describes them as “a kind of solution.”

ANSWER: **barbarians** [or **barbárous**; or **varvárous**] (The poem is “Waiting for the Barbarians” by Constantine Cavafy.)

[10] In the drama *The Persians*, this author describes how “terror fell” upon Xerxes and the rest of the namesake “barbarian” race at the hands of the Greeks. This ancient Greek tragedian also wrote the *Oresteia*.

ANSWER: **Aeschylus**

[10] In a poem from the collection *Jadis et naguère* (“zhah-DEESE ay nah-GAIR”), this French poet wrote of an “Empire in decline” “that sees the tall, fair-haired Barbarians fall.” Claude Debussy took the name of “Clair de lune” from a poem by this author of the collection *Poèmes saturniens*.

ANSWER: Paul **Verlaine** (“vair-LEN”)

<AP, European Literature>

4. Relational database management systems maintain the ACID (“acid”) properties of atomicity, consistency, isolation, and durability for these things. For 10 points each:

[10] Name these collections of operations that form a single logical unit of work in a database. A log named after these things is used to maintain ACID properties when a database crashes or its hardware fails.

ANSWER: **transactions**

[10] These synchronization mechanisms guarantee that data items are accessed in a mutually-exclusive way to ensure isolation when transactions execute concurrently. They are often called “mutexes” (“MYOO-tex-iz”).

ANSWER: **locks** [or mutual exclusion **lock**; accept **mutexes** until read; prompt on **semaphores**]

[10] In varieties of this database language, one typically marks the beginning and end of a transaction with BEGIN TRANSACTION and COMMIT statements, respectively. This language uses SELECT statements to query data.

ANSWER: **SQL** (“S-Q-L” or “sequel”) [or **Structured Query Language**; accept variants like **MySQL**]

<WC, Other Science: Computer Science>

5. This composer wrote the opera *Treemonisha*, in which a young woman leads her community against conjurors. For 10 points each:

[10] Name this ragtime composer of *Maple Leaf Rag* and *The Entertainer*.

ANSWER: Scott **Joplin**

[10] In 1939, this New Orleans jazz musician released a recording of several Joplin compositions arranged for trumpet. This leader of the Red Hot Peppers claimed to have invented jazz.

ANSWER: Jelly Roll **Morton** [or Ferdinand Joseph **LaMothe**]

[10] Benny Goodman’s 1935 recording of this Morton composition became a staple of the big band era. Goodman’s recording of this song features a notable trumpet solo by Bunny Berigan.

ANSWER: “**King Porter Stomp**”

<AE, Other Arts>

6. A group of these people known as the Zaporozhian Host based in the lower Dnieper rebelled against Polish control during the Khmelnytsky uprising. For 10 points each:

[10] Name these nomadic people who often fought for Russia in exchange for political autonomy, though under leaders like Yemelyan Pugachev they sometimes revolted against the Russian government.

ANSWER: **Cossacks** [or **Kozacy** or **Kazaky**]

[10] This Polish king defeated the Zaporozhian Host at the Battle of Beresteczko, but subsequently faced a Russian invasion in support of the Cossacks. The many invasions of Poland during his reign are known as the Deluge.

ANSWER: **John II** Casimir [or **John Casimir**]

[10] The Deluge also saw an invasion of Poland by this other country, which had been united with Poland in a personal union under John II’s father Sigismund III.

ANSWER: **Sweden** [or **Sverige**]

<AE, European History>

7. This thinker argued that mind-independent objects do not exist because we cannot conceive them, an argument dubbed his “master argument.” For 10 points each:

[10] Name this Irish idealist who wrote *Three Dialogues Between Hylas and Philonous*.

ANSWER: George **Berkeley** (“BARK-lee”)

[10] Berkeley critiques the distinction Locke makes between the properties that an object has due to observers, and the properties it has intrinsically. Give the term for both.

ANSWER: **primary** qualities AND **secondary** qualities

[10] This philosopher wrote a chapter-by-chapter rebuttal of Locke’s *Essay Concerning Human Understanding*. He may be better known for his namesake law, which states that indiscernible objects are identical.

ANSWER: Gottfried Wilhelm **Leibniz**

<JH, Philosophy>

8. This object’s owner tells it to “take me to where there is luck!” For 10 points each:

[10] Name this object. A character repeatedly shouts “It’s Malabar!” before he falls off of this object and dies in a story titled for it.

ANSWER: Paul's **rocking horse** [accept "The **Rocking-Horse Winner**"; prompt on a toy horse]

[10] "The Rocking-Horse Winner" is a short story by this British author of novels such as *Sons and Lovers* and *Lady Chatterley's Lover*.

ANSWER: D. H. **Lawrence** [or David Herbert **Lawrence**]

[10] In Lawrence's story "The Virgin and the Gypsy," the first title character, Yvette, is saved from dying in this manner by Joe Boswell. Maggie and her brother Tom die in this manner while locked in embrace in a George Eliot novel.

ANSWER: **drowning** in a flood [accept synonyms or word forms; accept equivalents of dying in a **flood**]

<VS, British Literature>

9. The Wigner transform reversibly maps operators to these functions. For 10 points each:

[10] Name this function whose time evolution is described by Liouville's ("lyoo-VEEL's") equation. According to Liouville's theorem, this function is constant along a system's trajectories.

ANSWER: **distribution** function [or phase space **distribution** function; or phase space **number density**; or phase space **probability density**]

[10] Liouville's equation can be restated in terms of this scientist's namesake "bracket" operator on rho and the Hamiltonian. This man names an equation which states that f equals the Laplace operator on phi.

ANSWER: Siméon Denis **Poisson** [accept **Poisson** bracket or **Poisson**'s equation]

[10] A set of these quantities that satisfy identities related to the Poisson bracket are known as "canonical." The Cartesian example of these systems assigns these values to points based on distance along rectilinear axes.

ANSWER: **coordinate** systems [accept canonical **coordinates** or Cartesian **coordinates** or **coordinate** axes]

<VS, Physics>

10. While in London, this artist painted a portrait of David Garrick sitting backwards in a chair. For 10 points each:

[10] Name this artist who depicted the mother of the Gracchi ("GRAH-kee") brothers showing them off to another Roman mother in *Cornelia Presenting Her Children as Her Treasures*.

ANSWER: Angelica **Kauffman**

[10] While living in London, Angelica Kauffman is rumored to have had an affair with this political figure. This French revolutionary's murder in a bathtub was depicted by Jacques-Louis David.

ANSWER: Jean-Paul **Marat** ("mah-RAH")

[10] Kauffman gained fame while working in Rome as a portrait painter for participants in this event, a gig that also made the career of Rosalba Carrera. Many young aristocrats in the 18th-century participated in this custom of journeying through Europe.

ANSWER: the **Grand Tour**

<JH, Painting & Sculpture>

11. This king's son tried to prank a sage by dressing up as a pregnant woman and asking him to guess the baby's gender, but the sage cursed him to give birth to a mace as punishment for his disrespect. For 10 points each:

[10] Name this mythical king of the Yādava ("YAH-duh-vuh") dynasty who died after being shot in the foot by a hunter who mistook him for a deer. This king's capital city of Dwārakā ("DWAH-ruh-kah") submerged into the sea a week after his death.

ANSWER: **Krishna** [or **Kṛṣṇa**; or **Govinda**; or **Gopāla**; or **Vāsudeva**] (The son described in the lead-in is Sāmba.)

[10] The civil war among the Yādavas is chronicled by this Hindu epic, whose main storyline concerns a civil war among members of the Kuru dynasty. Krishna delivers the Bhagavad Gītā ("BUH-guh-vud GEE-tah") to Arjuna in one section of this epic.

ANSWER: the **Mahabhārata**

[10] The Kuru dynasty had its capital at Hastināpur ("huh-stee-NAH-pur"), a city named for these animals.

Yudhishtira ("yoo-DISH-tih-ruh") lied about the death of one of these animals to subdue Drōna, and Indra's mount Airāvata ("eye-RAH-vuh-tuh") is one of these animals.

ANSWER: **elephants** [or **gaja**]

<AP, Mythology>

12. In an essay, this author described how existentialist hipsters, whom he calls “philosophical psychopaths,” “absorbed” the “existentialist synapses” of black men after World War II. For 10 points each:

[10] Name this author of the essay “The White Negro.” A novel by this author intentionally uses the euphemism “fug” in its depiction of an American regiment’s invasion of the fictional Filipino island Anopopei.

ANSWER: Norman **Mailer** (The novel is *The Naked and the Dead*.)

[10] This author and friend of Mailer criticized Mailer’s use of the language of “deprived Negroes” to justify his ideas. This author of *Go Tell it on the Mountain* also wrote the essay collection *Notes of a Native Son*.

ANSWER: James **Baldwin**

[10] Mailer’s description of jazz as the “music of orgasm” prefigures this author’s injunction to write “in accordance with laws of orgasm,” a technique that this author equated with that of jazz musicians in his manifesto “Essentials of Spontaneous Prose.”

ANSWER: Jack **Kerouac**

<AP, American Literature>

13. This city fielded an elite military force of 150 pairs of gay lovers called the Sacred Band. For 10 points each:

[10] Name this city that militarily dominated Greece after it crushed the Spartans at the Battle of Leuctra.

ANSWER: **Thebes**

[10] This Theban general introduced the oblique tactics used at Leuctra, though he was later killed while leading Theban forces to victory over the Spartans again at the Battle of Mantinea.

ANSWER: **Epaminondas**

[10] Thebes and its allies were decisively defeated at the Battle of Chaeronea by this commander, who spent his early life as a hostage in Thebes. His military innovations included the development of a long pike called a *sarissa*.

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

<AE, European History>

14. These species tend to have a high reproductive rate and dispersive ability. For 10 points each:

[10] Name these species that tend to outcompete local species for resources and often disrupt ecosystem function.

ANSWER: **invasive** species [prompt on **introduced** species]

[10] The Black Sea experienced a large decline in anchovy population in the 1980s due to an invasive species of these organisms, *Mnemiopsis leidyi* (“nem-EE-op-sis lay-DEE-eye”). These organisms form a phylum distinct from cnidaria, despite having a similar appearance.

ANSWER: **comb jellies** [or **ctenophores**]

[10] In a cruel form of justice, zebra mussels originally from the Black Sea region are an invasive species in this North American aquatic ecosystem. Isle Royale, on which moose and wolves form an ideal predator–prey relationship, is located in this region.

ANSWER: the **Great Lakes** ecosystem [accept **Lake Superior**]

<GR, Biology>

15. Some sources claim that this monarch conquered the Mon peoples’ city of Thaton (“tuh-TOHN”) simply because its ruler refused to send him a copy of the Pāli Canon. For 10 points each:

[10] Name this monarch who founded the Pagan (“buh-GAHN”) kingdom in modern-day Myanmar after uniting the Burmese people of the Irrawaddy River valley.

ANSWER: **Anawrahta** (“un-OH-rah-dah”) [or **Aniruddha**]

[10] Upon his conversion to Theravada Buddhism, Anawrahta constructed many of these religious structures. The Shwedagon is the most sacred of these towered structures in Myanmar.

ANSWER: **pagodas** [accept **stupas** or **zedi** or **phaya**; accept Shwedagon **Pagoda** or Golden **Pagoda**]

[10] Vijayabahu (“vih-jay-uh-BAH-hoo”), a king of this island, gifted Anawrahta a replica of the Buddha’s tooth after Anawrahta sent several monks to restore Buddhist rites. This island was later ruled by the Jaffna kingdom.

ANSWER: **Sri Lanka** [or **Ceylon**]

<AP, World History>

16. This oratorio’s completion was influenced by the death of its composer’s father Abraham, and it came a decade before the more popular *Elijah*. For 10 points each:

[10] Name this oratorio that uses four female singers to represent the voice of Jesus. A suite for string orchestra with a similar title contains “Jig” and “Ostinato” movements and rearranges an English dance tune from a suite for band.

ANSWER: **St. Paul** [or **Paulus**; accept **St Paul**’s *Suite*]

[10] *St. Paul* is by this Romantic composer who re-popularized the music of J. S. Bach by conducting a noteworthy performance of the *St. Matthew Passion*. He also wrote the Scottish and Italian symphonies.

ANSWER: Felix **Mendelssohn** [or Jakob Ludwig Felix **Mendelssohn**-Bartholdy]

[10] Mendelssohn was only sixteen when he composed this chamber piece in E-flat major whose third movement may be based on Goethe’s *Faust*.

ANSWER: String **Octet** in E-flat major

<JN, Classical Music>

17. This book asserts that humanity has passed through a “social theory of life,” in which people only recognize life in their societies, into a “divine theory of life,” in which people recognize life in God. For 10 points each:

[10] Name this book by Leo Tolstoy that advocates the doctrine of “non-resistance to evil by force.” It urges readers to establish the “greatest possible union between all living things” by recognizing and professing truth.

ANSWER: *The Kingdom of God Is Within You* [or *Tsarstvo Bozhiye vnutri vas*]

[10] This Indian activist credited *The Kingdom of God is Within You* as an inspiration in his autobiography *The Story of My Experiments With Truth*. He advocated a method of nonviolent resistance called *satyagraha*.

ANSWER: Mahatma **Gandhi** [or Mohandas Karamchand **Gandhi**]

[10] *The Kingdom of God is Within You* takes its name from a quote from this book of the Bible. In its Sermon on the Plain, a shorter version of the Sermon on the Mount, Jesus commands the listener to turn the other cheek.

ANSWER: Gospel of **Luke**

<WC, Other>

18. At the end of a play by this author, the title character is sentenced by Aeacus to shake dice in a bottomless box forever, until Caligula appears, claims him as a slave, and gives him as a gift to Aeacus. For 10 points each:

[10] Name this author of *Pumpkinification of the Divine Claudius*. This author also wrote the *Moral Epistles*, a series of 124 letters addressed to his friend Lucilius.

ANSWER: **Seneca** the Younger [or Lucius Annaeus **Seneca**]

[10] Seneca’s *Pumpkinification* is one of the few surviving examples of the “Menippean” type of this genre. The strain of this genre developed by Juvenal focuses on comically mocking social evils.

ANSWER: **satire** [accept more specific answers that mention **satire**]

[10] Seneca also wrote this moral essay, in which he notes, “It is not that we have a short space of time, but that we waste much of it.” It criticizes the “engrossed” whose pleasures leave them in busy idleness instead of leisure.

ANSWER: *On the Shortness of Life* [or *De brevitae vitae*]

<WC, World/Other Literature>

19. The first of these four concepts is *dukkha* (“DOOK-uh”), often translated as “suffering,” referring to pain and and dissatisfactions inherent to life itself. For 10 points each:

[10] Name these four concepts central to Buddhism that were detailed in the Buddha’s first sermon. The last of these concepts, *māgga* (“MAH-guh”), is an “Eightfold Path” that can be followed to bring about the cessation of *dukkha*.

ANSWER: Four **Noble Truths** [or *cattāri ariyasaccāni* or *catvāri āryasatyāni*]

[10] *Original language term required.* This word, often translated into English as “thirst,” refers to the desires for sensual pleasures, existence, and non-existence that help give rise to *dukkha*.

ANSWER: ***tanhā*** (“TUN-hah”) [or ***trishnā***] (Those are Pali and Sanskrit, respectively.)

[10] By following the Eightfold Path, one can ultimately eliminate *tanhā* and achieve the goal of *nirvāna*, thus freeing oneself from this cycle of birth and rebirth.

ANSWER: ***samsāra*** (“sum-SAH-ruh”)

<WC, Religion>

20. The *Phoenix* Mars lander included the TEGA instrument, which can perform this technique on soil samples. For 10 points each:

[10] Name this analytical chemistry technique that separates particles based on their mass-to-charge ratio.

ANSWER: **mass spectrometry** [or **MS**]

[10] Samples must be ionized for use in mass spec. In this technique, samples are integrated into a crystal and ionized with light. Like electrospray ionization, this is a “soft” technique that causes relatively little fragmentation.

ANSWER: **MALDI** [or **matrix-assisted laser desorption/ionization**]

[10] This form of mass spec analyzes sputtered particles ejected by a primary beam to study the composition of a surface or thin film.

ANSWER: **secondary ion** mass spectrometry [or **SIMS**]

<AE, Chemistry>