

2021 ACF Winter

Packet N by Florida A, JHU A, Minnesota B, Queens A, Yale A

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Tossups

1. In a play that depicts the aftermath of this sort of action, a bartender suffers a traumatic brain injury after he is hit with a bat while he intervenes in a bar fight. Another play about this sort of action was produced by the Group Theatre and features actors planted in the audience. This action, which occurs in the play *Sweat* by Lynn Nottage, is the subject of Tom Clayton's speech before he is exposed as a spy. An argument about whether to do this action leads Edna to threaten to leave her husband Joe in a play whose title character is found "with a bullet in his head." That discovery spurs Agate to overthrow a man who opposes this action named Harry Fatt. For 10 points, Clifford Odets's *Waiting for Lefty* ends with a call for what type of action by disgruntled taxi-cab drivers who form a union?
ANSWER: labor **strike** [or word forms; accept specific types of strikes, such as a steelworkers' **strike**]
<American Literature>

2. This substance, along with dew, is produced by plants as one of the Fifteen Signs before Doomsday that were popular in the Middle Ages. John Hagee ("HAY-ghee") and Mark Blitz both predicted that a tetrad named for this substance would be a premonition of the end of the world. In the Book of Revelation, this substance comes out of a winepress into which an angel has put vines. The second trumpet turns one third of the ocean into this substance, which is produced by the second and third bowls of God's wrath. After the opening of the Sixth Seal, the moon takes on this substance's color. In the Book of Revelation, robes are made white in this substance "of the Lamb." For 10 points, wine is turned into what substance of Christ as part of the Eucharist?
ANSWER: **blood** [accept **blood** moon prophecy or **blood** of the lamb or **blood** of Christ]
<Religion>

3. The Louvre holds the sole remaining leaf of a diptych from this empire, whose central section shows an unidentified leader of it on a rearing horse. A leader of this empire names a group of artworks comprising the Wernher, Borradaile, and Harbaville triptychs, which share a medium with this empire's Barberini ivory. Gustav Klimt was inspired by the manner in which two rulers of this empire are depicted in the Basilica of San Vitale's ornate floor mosaics. Artists from this empire originated the use of prominent scenes called "Deëses" ("day-EE-sees"), which show Christ Pantocrator as a flat figure on a gold leaf background; many such artworks were destroyed during this empire's two periods of iconoclasm. For 10 points, name this empire under which the Hagia Sophia was built in Constantinople.
ANSWER: **Byzantine** Empire [or **Byzantium**; or **Eastern Roman** Empire; accept Basileía **Rhōmaïōn**, but do not accept or prompt on "Roman Empire" or "Imperium Romanum"]
<Painting/Sculpture>

4. A factor named for promoting this process is used by *S. aureus* to form 100S ribosomal dimers. Takahashi et al. discovered a group of neurons that induce a state similar to this one, which express QFRP and are called Q neurons. During this process, cytoplasmic slits appear in the neural tissue of *Spermophilus parryi*. One of the few primates to perform this behavior is the Malagasy fat-tailed lemur. This behavior is supported by increased gluconeogenesis in brown fat. This behavior, whose summer equivalent is estivation, usually requires a controlled reduction of body temperature and the slowing down of metabolism. For 10 points, name this behavior in which an animal enters a state of dormancy during the winter, as practiced by bears.
ANSWER: **hibernation** [accept **torpor** before mention; prompt on **sleep**; prompt on **quiescence**; prompt on **hypothermia**] (*Spermophilus parryi* is the arctic ground squirrel.)
<Biology>

5. It's not the Taser, but C. V. Wetli and D. A. Fishbain blamed this product for causing deadly "excited delirium." David Farber's book on this product in "the decade of greed" outlines its trade by George Jung and Carlos Lehder, who set up a hub for it in Norman's Cay ("key"). This product was held up in the first Oval Office address of George H. W. Bush. Gary Webb's *Dark Alliance* claims that the CIA supported this product's trader Rick Ross. A 100-to-1 legal disparity between two forms of this product was mitigated by the 2010 Fair Sentencing Act, which amended a 1986 law on mandatory minimums. Barry Seal and Griselda Blanco smuggled this product in 1980s-era gang wars in South Miami. For 10 points, an alleged "inner city" "epidemic" was fueled by the Medellín Cartel's traffic in what drug from Colombia?

ANSWER: **cocaine** [or slang terms like **coke** or **blow**; accept **crack** cocaine or **freebase** cocaine or **rock** or **crack** epidemic; or **benzoylmethylecgonine**; prompt on **drugs** or **stimulants** or equivalents; prompt on **coca** leaves; do not accept or prompt on "Coca-Cola"]

<American History>

6. In a symphony of this number, the oboes and clarinets introduce the *pianissimo* first theme [read slowly] "long F-sharp, low B, A-sharp–B–C-sharp–F-sharp." A piece for this many musicians contains an *allegro leggierissimo* third movement that may have been inspired by Walpurgis Night. That piece for this many musicians concludes with a *presto* fugato and was written by its 16-year-old composer in the same key as his overture to *A Midsummer Night's Dream*. A theme played by the low strings opens a B minor symphony of this number, whose intended finale may have been turned into the entr'acte from its composer's *Rosamunde*. For 10 points, give this number of Schubert's "Unfinished" symphony, which is also the number of musicians in an E-flat major Mendelssohn chamber piece scored for two string quartets.

ANSWER: **eight** [or **eighth** symphonies]

<Classical Music>

7. A nitrate of this element is used as an oxidizing agent to transform benzene into picric acid in the Wolfenstein–Bötters reaction. Joel Blum discovered that sunlight causes mass-independent fractionation of this element's odd isotopes. In the gas phase, dimers of this element form through van der Waals interactions because its 6s² orbital undergoes relativistic contraction. A small amount of this element is placed in a capillary tube to create an electrode used in polarography. This element's acetate is used to add hydroxyl groups to the more substituted position of a double bond. This element, which is the heaviest in the preservative thimerosal, forms a sulfide called cinnabar. The dimethyl derivative of this element can seep through latex gloves, which is how it killed Karen Wetterhahn. For 10 points, name this toxic liquid metal.

ANSWER: **mercury** [or **Hg**; accept **mercury(II)** acetate or **mercury(II)** sulfide or dimethyl **mercury**; prompt on **oxymercuration**]

<Chemistry>

8. In a section on virtues, this book compares differing ethical codes to the different coloring effects of stars. This book calls Stoicism "self-tyranny" in a short section that makes fun of its philosophy of "living according to nature." The adage "A true teacher doesn't take anything seriously except in relation to his pupils" appears in this book's series of "Interludes." After railing against dogmatism, this book praises the creativity of "new philosophers" in its section "The Free Spirit." This book opens by asking, "Suppose truth is a woman – what then?" This book [emphasize] *originated* the argument that Christianity forced the mass adoption of "slave morality." Preceding *On the Genealogy of Morals*, for 10 points, name this book that seeks to move past traditional morality, written by Friedrich Nietzsche.

ANSWER: ***Beyond Good and Evil: A Prelude to a Philosophy of the Future*** [or ***Jenseits von Gut und Böse: Vorspiel einer Philosophie der Zukunft***]

<Philosophy>

9. A 2014 paper posited a connection between the Badianus manuscript, a medical text originally written in this language, and the Voynich manuscript. During coronations, speeches from the audience were interspersed with speeches from rulers in this language, which was written on amate (“ah-MAH-tay”) bark paper. “Flowers and songs” were poems in this language, which was taught at “calmecac” schools. Camilla Townsend wrote a “new history” entirely from sources in this language, titled *Fifth Sun*. Works in this language were studied at the Colegio de Santa Cruz and were compiled by Bernardino de Sahagún. Histories in this language, such as those in the Florentine Codex, often reference a homeland called “Aztlán.” For 10 points, name this language used by an empire ruled by Moctezuma II.

ANSWER: **Nahuatl** [accept **Aztec** or **Aztecan** languages; or **Nāhuatl**lahtōlli; or **Mēxihca**lahtōlli or **Mācēhuallahtōlli**; accept **Mexica**; prompt on **Uto-Aztecan** languages]

<World History>

10. A character with this surname calls an arrogant man “Balaam’s ass” after he tells the story of a monk who was flayed alive for refusing to convert to Islam. A group of schoolboys chant “Hurrah for [this surname]!” at the end of a novel after a man tells them to cherish childhood memories during a “Speech by the Stone.” The faith of a character with this surname is shaken after his dead mentor’s body begins to rot and give off a strong smell. A character with this surname tells his religious brother a story in which Jesus is arrested by the Inquisition. A man with this surname is put on trial for the murder of his father, which was actually committed by the servant Smerdyakov. For 10 points, Dmitri, Ivan, and Alyosha are brothers with what surname in a novel by Fyodor Dostoyevsky?

ANSWER: **Karamazov** [or **Karamazovy**; accept *The Brothers Karamazov* or *Brat’ya Karamazovy*; accept Fyodor Pavlovich **Karamazov** or Dmitri **Karamazov** or Ivan **Karamazov** or Alyosha **Karamazov** or Alexei **Karamazov**]

<European Literature>

11. When undergoing one form of this phenomenon, a class of systems exhibits hysteresis in the foldover effect. This phenomenon occurs at peaks in a system’s Bode (“BOH-dee”) magnitude plot. A quantity that governs this phenomenon is calculated using a factor of [read slowly] “the square root of one minus two times the damping ratio squared.” Systems that experience this phenomenon strongly and over narrow bandwidths have high Q factors. This phenomenon is often incorrectly blamed in place of aeroelastic flutter for the collapse of the Tacoma Narrows bridge. Singers can exploit this phenomenon to shatter glass. For 10 points, name this phenomenon in which a system driven near its natural frequency oscillates at high amplitude.

ANSWER: **resonance** [or word forms like **resonant**; accept nonlinear **resonance**]

<Physics>

12. This actress voiced an object that yells at the misogynist “Conde Nest” employee Dirk in a cameo as Bertie’s left breast on *Tuca & Bertie*. At the end of a 2019 film, a woman played by this actress thrusts out her arms and yells “HA!” on a busy street, in imitation of a relative’s exercise routine. On a plane ride, a woman played by this actress imagines a name change from Geena (“JEE-nuh”) to Gina (“JYE-nuh”) while she teases the protagonist for his choice of alias. This star of the show *Nora from Queens* voiced the dragon Sisu in *Raya and the Last Dragon* and played Billi, whose family conceals a cancer diagnosis from her Chinese grandmother, in Lulu Wang’s film *The Farewell*. For 10 points, name this Asian-American actress and rapper who played Katy in *Shang-Chi* and goes by a one-word stage name.

ANSWER: **Awkwafina** [or Nora **Lum**; accept *Awkwafina Is Nora from Queens*]

<CE/Geo/Other/Pop Culture>

13. In a chapter of this novel, the line “I fade out” is repeated by a hospitalized character after he is beaten up by a man wearing brass knuckles. A boy in this novel is found unconscious in a bathtub beside a bloody razor after his adoptive father breaks his promise and tells him that he has to return to an orphanage. After his father is diagnosed with lung cancer, this novel’s protagonist marries General Taheri’s daughter, Soraya, who supports his passion for writing. Another character in this novel promises “For you a thousand times over” to the protagonist and uses a slingshot to save him from the bully Assef. For 10 points, name this novel about the Hazara boy Hassan and his half-brother Amir, who fly the title objects in Kabul, written by Khaled Hosseini.

ANSWER: *The **Kite Runner***

<World Literature>

14. A sentence has this property when the choice of quantifier scope evokes the *de dicto/de re* distinction. A type of this property that often occurs when copulas are omitted is named after a headline about a violinist who is linked to a plane crash. This property may temporarily occur when a reader parses only a portion of a garden path sentence. The constructed language Lojban avoids many kinds of this property by using phonetic spelling and a grammar based on predicate logic. In English, this property is evoked when prepositional phrases can be attached to different parts of a parse tree, such as in the sentence “I saw the person with the binoculars.” Use of the Oxford comma is often meant to avoid, for 10 points, what property in which a statement has multiple valid interpretations?

ANSWER: **ambiguity** [or word forms like **ambiguous**; accept crash blossom **ambiguity**; accept **unclear** meaning or accept **unclear** interpretation or **multiple meanings**; accept **multiple interpretation** before read; do not accept or prompt on “vagueness”]

<Social Science>

15. The 1974 closing of one of these businesses called Herstatt motivated the CLS system. Lake Toplitz held evidence of the SD’s attempt to sabotage these businesses in Britain in Operation Bernhard. In 1997, Christoph Meili revealed that one of these businesses shredded records of Holocaust victims, in violation of the 1934 Federal Act that establishes secrecy for this industry’s “bulge bracket” firms. Roberto Calvi chaired the covert Ambrosiano business of this kind that collapsed due to the Institute for the Works of Religion, which is also called the “Vatican” one. In 1930, the Young Plan created one of these businesses for “International Settlements.” These businesses defaulted during the Icelandic financial crisis. For 10 points, UBS was among what businesses in Switzerland that stored Nazi gold?

ANSWER: **banks** [accept commercial **banks** or central **banks**; accept **savings** banks or **investment** banks or **financial** services or **securities** or **credit** or **loans** or **lending** or equivalents; accept specific banks like **UBS** or Union **Bank** of Switzerland or Vatican **Bank** or **Banco** Ambrosiano or Herstatt **Bank**; accept Federal Act on **Banks** and Savings Banks] (CLS stands for “Continuous Linked Settlement.”)

<European History>

16. In this novel, a personification of Anxiety hounds a character who is forced to sell his mother’s diamond pin. This novel’s protagonist, who is repeatedly described as short-sighted, is surprised to find that he has awoken next to a sleeping child with golden hair who reminds him of his deceased sister. In this novel, the personified demon Opium enslaves Molly Farren, who collapses in the snow and leaves her daughter motherless. After William Dane frames this novel’s protagonist, he is forced to flee Lantern Yard. At this novel’s end, the protagonist rejoices when the skeleton of Dunstan Cass is found with his stolen gold, and he celebrates with his adopted daughter Eppie. For 10 points, name this George Eliot novel about a “weaver of Raveloe.”

ANSWER: ***Silas Marner*** [or ***Silas Marner: The Weaver of Raveloe***]

<British Literature>

17. *Two answers required.* One of these two states sent troops to Cardia to oppose cleruchs led by the other's general Diopeithes, the father of Menander. In 279 BCE, Calippus led one of these states against a less-famous Brennus during a Celtic invasion in which Bolgios killed the other's ruler, Ceraunus. Hypereides spurred one of these states to lead Locris, Phocis, and Argos in revolt against the other and its ally Boeotia ("bee-OH-shuh") in the Lamian War. These two states swore the 346 BCE Peace of Philocrates that failed after one's ecclesia expelled Aeschines ("ISS-kin-eez") and the other invaded Thrace. Under Chares, one of these states allied with Thebes, but lost the Battle of Chaeronea ("care-uh-NEE-uh") to the other. For 10 points, name these two states, one a democratic polis where Demosthenes delivered his *Philippics* to denounce the other, an expanding kingdom led by Philip II, father of Alexander.

ANSWER: **Athens** AND **Macedon** [accept in either order; accept **Athína** or **Athênai** or **Attica** or **Attic** peninsula in place of "Athens"; accept Kingdom of **Macedonia** in place of "Macedon"]

<Other History>

18. This deity holds a sugarcane branch in the first two forms of thirty-two iconographic depictions of this deity detailed in the *Sritattvanidhi*. This deity's vast wisdom is represented in their *Mahodara* form, one of eight incarnations described in the Mudgala Purana. Because the Moon laughed when this deity fell down, some devotees consider it bad luck to look at the Moon on Chaturthi. This deity transcribed the *Mahabharata* as dictated to him by Vyasa. This deity uses a mouse as his mount in a race against his brother Kartikeya that this deity wins by circling his parents. While guarding his bathing mother, this deity was beheaded by his father Shiva. For 10 points, name this Hindu "remover of obstacles" with the head of an elephant.

ANSWER: **Ganesh** [or **Ganapati**; or **Vinayaka**; accept **Pillai** or **Pillaiyar**; prompt on **Vigneshvara**]

<Mythology>

19. In 1998, a performance artist from this country sold fifteen bottles of boiled pieces of human brain at a market. It's not Serbia, but this country hosted the 1988 work *Lovers*, in which a lengthy walk ended the collaboration between Ulay and Marina Abramović ("ah-BRAH-moh-veech"). At the Tate Britain in 1999, two performance artists from this home country of the *Fuck Off* exhibition jumped on Tracey Emin's work *My Bed*. An artist from this country variously smashed or smeared the Coca-Cola logo onto some of its ancient artifacts. That artist from this country filled the Tate Modern's Turbine Hall with 100 million ceramic sunflower seeds and co-designed an Olympic stadium in this country's capital called the Bird's Nest. For 10 points, name this home country of Ài Wèiwèi.

ANSWER: **China** [or People's Republic of **China** or **PRC**; or **Zhōngguó** or **Zhōnghuá** Rénmín Gònghéguó]

<Other Arts>

20. Ken Thompson used this process to create a running example of an exploit in his paper "Reflections on Trusting Trust." In this process, use-def chains can be created to enforce SSA form, which, in this process, facilitates copy propagation and constant propagation. This process typically makes internal use of an intermediate representation. This process is visualized using T-diagrams, which can be used to demonstrate bootstrapping. During this process, the execution speed of loops can be increased by "unrolling" them. Programs that perform this process, such as gcc and javac ("java-C"), are often contrasted with interpreters. For 10 points, name this process, the conversion of source code into a machine code executable.

ANSWER: **compilation** [or word forms such as **compilers** or **compiling** code; accept **bootstrapping** before read; prompt on answers like **creating executables**; prompt on **lexing** or **parsing**]

<Other Science>

21. This book's "global" procedure enables it to analyze an "endless chain" involving Mr. X, Mr. Y, and Mr. Z, according to a 1970 essay subtitled "Notes Towards an Investigation." This book's opening line is referenced in the first thesis of Guy Debord's *The Society of the Spectacle*, which describes how life "presents itself as an immense accumulation of *spectacles*." Popular companions to this book include a book on "Reading" it by Louis Althusser and a lecture series by David Harvey. This book argues that technological improvements paradoxically tend to decrease the rate of profit. The first volume of this three-volume book discusses the concept of "commodity fetishism" and elucidates how workers create surplus value. For 10 points, name this "Critique of Political Economy" by Karl Marx.

ANSWER: Capital [or *Das Kapital*; or Capital: A Critique of Political Economy or *Das Kapital: Kritik der politischen Ökonomie*; accept *Reading Capital*] (The essay in the first sentence is "Ideology and Ideological State Apparatuses" by Louis Althusser.)

<Philosophy>

Bonuses

1. Charles F. Manski has proposed the use of an “adaptive” criterion based on this concept during the drug approval process. For 10 points each:

[10h] Name this concept, whose maximum possible value is minimized in a common decision-making rule. This concept represents the difference in outcomes between the decision that was made and the optimal decision.

ANSWER: **regret** [accept minimax **regret**]

[10e] “Loser’s regret” has been experimentally induced following these events by showing all participants the winning bid. These events come in “first-price” or “second-price” variants.

ANSWER: **auctions**

[10m] In many cases, regret results from lacking this variable at the time of decision-making. Asymmetry in this variable can lead to market unraveling, according to George Akerlof’s “The Market for Lemons.”

ANSWER: **information** [accept **information** asymmetry; prompt on **knowledge**]

<Social Science>

2. This country’s first female President, who is nicknamed the “Steel Magnolia,” promoted dairy and laser manufacturing at the 2018 China International Import Expo. For 10 points each:

[10h] Name this country that recently banned China’s Xiǎomǐ (“shao-mee”) app for installing censorship malware. China imports much of its potash from a port in this European country, which became a FinTech hub after its 1990 independence.

ANSWER: **Lithuania** [or **Lietuva** or Republic of **Lithuania** or **Lietuvos** Respublika] (The port is Klaipeda. The President is Dalia Grybauskaitė.)

[10m] This leader has recently attempted to funnel Iraqi refugees into Lithuania, Latvia, and Poland. This leader diverted Ryanair Flight 4978 from Vilnius to his own capital in order to arrest the journalist Roman Protasevich.

ANSWER: Alexander **Lukashenko** [or Alexander Grigoryevich **Lukashenko** or Alyaksandr Ryhoravich **Lukashenka**]

[10e] Lukashenko and his ally Aliaksei Aleksin profit from smuggling these items into Lithuania and Poland. Nearly 40% of Europeans use these items made by brands like Philip Morris’s subsidiary Português, a competitor of Camel.

ANSWER: **cigarettes** [accept **cigs** or **cigars** or **tobacco**; accept “**butt**legging”]

<CE/Geo/Other/Pop Culture>

3. Whittaker–Shannon interpolation reconstructs a signal in terms of this function. For 10 points each:

[10h] Name this function that is the Fourier transform of a rectangular pulse. The value of this function at zero is conventionally set to one to avoid having a singularity.

ANSWER: **sinc** (“sink”) [accept **sine of x over x**; accept other variables in place of x ; do not accept or prompt on “sine”]

[10m] Because the Fourier transform of the sinc function is zero above a certain cutoff frequency, it can be used to construct a “low-pass” device of this kind. These devices remove unwanted frequencies from a signal.

ANSWER: **filter** [accept low-pass **filter**]

[10e] The sinc function can be normalized by scaling its input by this number. Because the sine function’s zeros are at integer multiples of this number, the unnormalized sinc function’s zeros are as well.

ANSWER: **pi**

<Other Science>

4. Duke Leopold III of Austria negotiated over a shipment of this good to end a brief 1374 “war” that motivated its production in Basel to end reliance on trade from Persian cities like Derbent and Nishapur. For 10 points each:

[10m] Name this good whose faking with marigolds motivated a 15th-century food fraud law in Nuremberg. Dyers and perfumers bought this good from Genoese merchants after its labor-intensive harvest from crocus stigmas.

ANSWER: **saffron** [accept **saffron** crocus; accept **Saffron** War; accept **Safranschou**; prompt on **spices**]

[10e] Demand for saffron rose since it was reputed to cure this disease. Genoese merchants from Caffa are often blamed for spreading this disease to Europe during its 14th-century pandemic.

ANSWER: **plague** [or black **plague** or bubonic **plague** or pneumonic **plague** or septicemic **plague**; accept second **plague** pandemic or **Black Death** or Great **Pestilence** or **Great Mortality**; prompt on **pneumonia** or **sepsis** or **septicemia**]

[10h] After the black plague, powerful households called alberghi (“all-BAIR-ghee”) took control of Genoa’s Levantine commerce, despite the city’s nominal loss to Venice in a 1378 trade war over this coastal salt-drying town in the Veneto.

ANSWER: **Chioggia** (“K’YOD-jah”) [or **Ciόxa**; accept War of **Chioggia** or Guerra di **Chioggia**] (Chioggia later gained fame for heirloom beets that resemble peppermint.)

<European History>

5. Answer the following about vacuum cleaner salesmen in 20th-century British literature, for 10 points each.

[10m] The vacuum cleaner salesman James Wormold fabricates increasingly elaborate intelligence reports for MI6 while in the title city in this comic novel by Graham Greene.

ANSWER: ***Our Man in Havana***

[10h] Julian MacLaren-Ross, whose novel *Of Love and Hunger* is about a vacuum cleaner salesman, was parodied as the writer X. Trapnel in this series. This twelve-volume series opens with the novel *A Question of Upbringing*.

ANSWER: ***A Dance to the Music of Time*** (by Anthony Powell)

[10e] Don van Vliet (“vleet”), better known as the musician Captain Beefheart, once sold a vacuum cleaner to this author of *Brave New World* with the convincing sales pitch “I assure you sir, [it] sucks.”

ANSWER: Aldous **Huxley** [or Aldous Leonard **Huxley**]

<British Literature>

6. While setting out this thing, a woman gazes upon Argos and resolves to greet her husband “as land beheld... by crews forlorn” and “as gushing spring to thirsty wayfarer.” For 10 points each:

[10h] Name this thing which a king claims “beseems the gods.” That king asks to be honored “as man, not god” as he walks on this thing, shortly before he is stabbed to death by his wife.

ANSWER: **purple carpet** [or **red carpet**; accept rough equivalents like **purple tapestry** or **red curtains**; prompt on **carpet** or **tapestry** or **rugs** or close equivalents by asking “of what color?”; prompt on, but DO NOT REVEAL, the **carpet** from ***Agamemnon*** or close equivalents by asking “of what color?”]

[10e] The purple carpet foreshadows this king’s death at the hands of his wife Clytemnestra in the first play of Aeschylus’s *Oresteia* Trilogy. This king led the Greeks during the Trojan War.

ANSWER: **Agamemnon**

[10m] Aeschylus wrote a lost sequel to the *Oresteia* trilogy titled *Proteus* in this theatrical genre. Euripides’s *Cyclops* is the only fully extant work in this genre, whose eponymous mythical creatures often served as the chorus.

ANSWER: **satyr** plays

<European Literature>

7. This person developed the idea that all forms of dualism and change, including the separation between ātman and brahman, are an illusion. For 10 points each:

[10h] Name this leading exponent of the Advaita Vedanta school of Hindu theology. The *Brahma-sutra-bhashya* is attributed to this writer.

ANSWER: Adi **Shankara** [or Adi **Shankara**charya or Ādi **Śaṅkarā**cāryah]

[10e] Some Advaita Vedanta believers use this general practice to achieve the knowledge that ātman is the same as brahman. This practice, which is also common among Buddhists, involves mindfulness and contemplation.

ANSWER: **meditation** [or word forms like **meditating**; or **dhyāna**; prompt on **reflection** or similar; prompt on *vipassanā* or *śamatha*]

[10m] Much of Advaita Vedanta is based on ideas in these texts, including tat tvam asi. These texts, which include a Chandogya example, deal with meditation and philosophy.

ANSWER: **Upanishads** [or **Upaniṣad**; accept Chandogya **Upanishad** or Chāndogy**opaniṣad**; prompt on the **Vedas**] <Religion>

8. Jacopo Pontormo's version of this scene in the Capponi Chapel is crowded with figures wearing soft blues and pinks around the central figure. For 10 points each:

[10m] Name this scene from the life of Jesus, the subject of a Rogier van der Weyden painting for the Leuven guild of archers. A Rubens triptych of this scene shows Nicodemus and Joseph of Arimathea atop ladders.

ANSWER: **Deposition** of Christ [or **Descent** from the Cross; prompt on descriptions like taking **Christ** off the **cross** by asking "what is the conventional name of that scene in art?"]

[10e] The elongated figures of Pontormo's *Deposition* exemplify Mannerism, as does Parmigianino's painting of this woman with a "Long Neck." Madonna scenes depict this woman with Jesus.

ANSWER: **Mary** [or the Blessed Virgin **Mary** or the Blessed **Virgin** Mary; prompt on **mother of Jesus** or **Madonna**]

[10h] This other Mannerist painter placed two ladders at unusual perspectives in his *Volterra Deposition*. At the behest of Francis I, this painter and Francesco Primaticcio founded the First School of Fontainebleau.

ANSWER: Rosso **Fiorentino** [or il **Rosso** or Giovanni Battista di **Jacopo**]

<Painting/Sculpture>

9. These people follow the principle of *nanawatai*, in which they are obligated to honor requests for sanctuary. For 10 points each:

[10m] Name this Afghan ethnic group whose lands were partitioned on both sides of the Durand Line. These people hold assemblies called *jirgas*, such as one that brought Ahamad Shāh Durrānī to power.

ANSWER: **Pashtun** people [accept **Pathans** or **Pakhtun** people]

[10e] Many Pashtun tribes, such as the Yusufzai, whose name means "son of Joseph," claim descent from these people. The ten tribes described by this adjective split from an original twelve and supposedly emigrated from Israel.

ANSWER: ten **lost** tribes of Israel [prompt on **Hebrews** or **Jews**]

[10h] English historian Charles Masson posited that the Durrānī tribe of Pashtuns were descendants of these people. These people, who invaded India after the Alchons, were described as the "Sveta Huna" in Sanskrit.

ANSWER: **Hephthalites** [accept **White Huns** or **White Hunas**; or **Spet Xyon**; accept **Ehodalo**; prompt on **Huns** or **Hunas**]

<World History>

10. The Haber process reacts this gas with hydrogen in order to decompose it into ammonia. For 10 points each:
[10e] Name this relatively inert gas that makes up 78 percent of the atmosphere. It has a very strong triple bond between its two atoms.

ANSWER: **nitrogen** gas [or **N₂** (“N-two”)]

[10m] Either nitrogen or this other gas is often used to purge containers of oxygen. This noble gas, which is used as the medium in a laser with wavelength of 488 nanometers, can be extracted from the atmosphere by cryogenic air separation.

ANSWER: **argon** [or **Ar**]

[10h] This scientist names an apparatus that consists of several ports, with one manifold hooked up to a vacuum line and another hooked up to a source of inert gas, that is used in air-free techniques. He also discovered that organomagnesium compounds can dimerize.

ANSWER: Wilhelm **Schlenk** [or Wilhelm Johann **Schlenk**; accept **Schlenk** line; accept **Schlenk** equilibrium]
<Chemistry>

11. The 1850 Clayton–Bulwer Treaty over British Honduras was the main political achievement of this president, who lived in Louisville’s Springfield Mansion before he married the pious Episcopalian Peggy Smith. For 10 points each:

[10e] Name this Whig president whose untimely death is traditionally attributed to cherries and milk he ate on a hot July Fourth. This Mexican–American War major general held power between James K. Polk and Millard Fillmore.

ANSWER: Zachary **Taylor** [accept “**Old Rough and Ready**”; do not accept or prompt on “John Tyler”]

[10m] Like Abraham Lincoln, Taylor fought the British Band in this 1832 frontier war. Near Saukenuk on the Rock River between Illinois and Iowa, he lost a battle to this war’s eponymous Sauk general.

ANSWER: **Black Hawk** War [accept **Black** Sparrow **Hawk** or **Ma-ka-tai-me-she-kia-kiak**]

[10h] Before the Black Hawk War, Taylor commanded Fort Snelling near this city, where the Dakota were interned on Pike Island. The hydropower of this city’s Saint Anthony Falls drove lumber and flour mills like Pillsbury.

ANSWER: **Minneapolis** [accept Minneapolis–**Saint Paul** or **Twin Cities**; accept **Mendota** or **Mendota** Heights; do not accept or prompt on “Bloomington” or “Mankato”]

<American History>

12. A screw pinch can be thought of as a straight form of these devices. For 10 points each:

[10h] Name these devices. A parameter that characterizes the stability of these devices is equal to the ratio of particle travel times in two directions, and is inversely proportional to the rotational transform.

ANSWER: **tokamaks**

[10e] Most modern attempts to exploit this process for power generation make use of a tokamak. In this process, light nuclei combine into heavier nuclei.

ANSWER: nuclear **fusion**

[10m] Tokamaks use magnetic fields to perform this process on plasmas in order to enable nuclear fusion. Powerful lasers heat a fuel pellet in the “inertial” type of this process.

ANSWER: **confinement** [or word forms; accept magnetic **confinement** or inertial **confinement**]

<Physics>

13. The main prophets of these people were Tages, a boy born from tilled land, and Vegoia, a seer who outlined the mythological role of lightning in her *Books of Lightning*. For 10 points each:

[10h] Name these people who worshipped a triumvirate of gods including the mother god Uni (“OO-nee”), the sky god Tinia, and their daughter, a goddess of wisdom.

ANSWER: **Etruscans** [or **Etruscan** civilization; or **Rasenna** or **Raśna**]

[10e] Uni was the Etruscan equivalent of, and partial inspiration for, this Roman goddess of motherhood and wife of Jupiter.

ANSWER: **Juno** [accept **Iuno**; do not accept or prompt on “Hera”]

[10m] The supreme chthonic (“kuh-THAH-nick”) deity Voltumna was the Etruscan equivalent of Vertumnus, a Roman god of these phenomena. In Greek mythology, the Horae are named for, and oversee, these phenomena.

ANSWER: **seasons** [or changing **seasons**]

<Mythology>

14. A poem partly titled for this genre describes “A sad song in de air. / Ever time de trains pass / I wants to go somewhere.” For 10 points each:

[10m] Name this genre which also titles another poem about a man “down on Lenox Avenue” who “crooned that tune” as the “stars went out and so did the moon.”

ANSWER: **blues** [accept “The Weary **Blues**”; accept “Homesick **Blues**”]

[10e] “Homesick Blues” and “The Weary Blues” are poems by this American author, who described how his “soul has grown deep like the rivers” in the poem “The Negro Speaks of Rivers.”

ANSWER: Langston **Hughes** [or James Mercer Langston **Hughes**]

[10h] This poet, who called Hughes a “torchbearer of black literature,” wrote the book *Blues People*. This author repeatedly asks “Who? Who? Who?” in his controversial poem about 9/11, “Somebody Blew Up America.”

ANSWER: Amiri **Baraka** [or LeRoi **Jones**; or Everett LeRoi **Jones**; or Imamu Amear **Baraka**]

<American Literature>

15. An incorrect story about the naming of this piece references the repeated B’s in the right hand during its first variation. For 10 points each:

[10h] Give this popular name for the last movement *Air and Variations* in E major from a 1720 suite.

ANSWER: *The **Harmonious Blacksmith***

[10e] *The Harmonious Blacksmith* was written for this keyboard instrument that was popular in the Baroque era, in which sound is produced by plucking strings with a small plectrum.

ANSWER: **harpsichord** [or **clavicembalo** or **clavecín** or **Cembalo**]

[10m] A possibly-apocryphal story relates how, during a competition at Cardinal Ottonboni’s palace, G. F. Handel emerged the superior organist but this composer was declared the superior harpsichordist. This composer wrote a set of 555 keyboard sonatas.

ANSWER: **Domenico Scarlatti** [or **Domingo Scarlatti**; or **Giuseppe Domenico Scarlatti**; prompt on **Scarlatti**]

<Classical Music>

16. Many French wool merchants resided in this wool-producing city, which exported peat and herring from the nearby Great Yarmouth that funded its Norman Romanesque cathedral. For 10 points each:

[10h] Name this city whose large Jewish community was blamed for the 1144 murder of the boy William in the first blood libel. Thomas Browne resided in this city, where an anchoress wrote *Revelations of Divine Love*.

ANSWER: **Norwich** [accept Julian of **Norwich**; accept William of **Norwich**; accept **Norwich** Cathedral]

[10e] In Norwich's nearby rival Bury St Edmunds, Abbot Samson eagerly adopted the blood libel myth in order to obtain more of these objects. Medieval pilgrims often visited these holy artifacts of saints like Edmund the Martyr.

ANSWER: **relics** [or word forms like **reliquary**; prompt on physical **remains** or similar]

[10m] The *Annals of Ulster*'s "chief relic of the western world" was this abbey's namesake gospel book, an insular illuminated manuscript. Before he settled Iona, Saint Columba may have founded this Irish abbey in County Meath.

ANSWER: Abbey of **Kells** [or Mainistir **Cheanannais**; accept **Ceanannas**; accept Book of **Kells** or Codex **Cenannensis** or Leabhar **Cheanannais**]

<Other History>

17. Answer the following about the German scholar Ulli Beier's influence on world literature, for 10 points each.

[10m] Beier founded the first African literary journal in English, titled for a "Black" version of this figure. Its name references a Sartre essay that was also titled for a "Black" version of this mythological figure.

ANSWER: **Orpheus** [accept *Black Orpheus* or *Orphée Noir*]

[10e] Beier transcribed the first major work of Papua New Guinean literature, Albert Maori Kiki's novel titled for 10,000 of [these periods] in *a Lifetime*. A Gabriel García Márquez novel is titled for 100 of these periods of *Solitude*.

ANSWER: **years** [or **años**; accept *One Hundred Years of Solitude* or *Cien años de soledad*; accept *Ten Thousand Years in a Lifetime*]

[10h] Beier ended his literary career in this country. An author from this country wrote the novel *That Deadman Dance*, which won a national award named for the author of *My Brilliant Career*.

ANSWER: **Australia** [or Commonwealth of **Australia**] (The award is the Miles Franklin Award.)

<World Literature>

18. The genomic "scar" caused by mutations in these genes may predict the efficacy of PARP ("P-A-R-P") inhibitor cancer treatments. For 10 points each:

[10m] Identify either of these similarly-named genes involved in homology-directed DNA repair. Mutations in them predispose individuals to an aggressive "triple negative" form of a cancer often detected using mammograms.

ANSWER: **BRCA1** OR **BRCA2** [or **BRCA** ("BRACK-uh")]

[10e] PARP functions to polymerize a derivative of this molecule with two phosphate groups attached. This nucleotide base pairs with thymine in DNA.

ANSWER: **adenine** [or **adenosine** or **A**; accept **ATP** or **adenosine** triphosphate or **ADP** or **adenosine** diphosphate]

[10h] PARP inhibitors selectively target BRCA-deficient cancer cells in an example of this paradigm, in which a cell can tolerate independent knockout of either of two genes, but not knockout of both simultaneously.

ANSWER: **synthetic lethality** [or word forms; prompt on **lethality**]

<Biology>

19. This choreographer wrote that “There are always ancestral footsteps behind me, pushing me... gestures are flowing through me” in the autobiography *Blood Memory*, written at age 95. For 10 points each:

[10m] Name this choreographer who included square dance patterns in a ballet that centers on the “Husbandman” and the “Bride.” This choreographer’s namesake “technique” is based on contraction and release.

ANSWER: Martha **Graham** [accept the **Graham** technique]

[10e] Graham often invoked “blood memories” while instructing performers in that ballet, which is titled “Appalachian” followed by this word. A controversial Stravinsky ballet is titled for “The Rite of” this word.

ANSWER: **spring** [accept *Appalachian Spring* or *The Rite of Spring*]

[10h] This other choreographer was inspired by “blood memories” of churches and gospel music to include a dance depicting his own baptism in the 1960 ballet *Revelations*.

ANSWER: Alvin **Ailey** Jr.

<Other Arts>

20. Answer the following about differences between Western epistemology and Indigenous knowledge systems, for 10 points each.

[10e] Indigenous epistemologies often place value on knowledge gained via this method. Western thought has traditionally devalued stories transmitted via this method and instead championed written works.

ANSWER: **oral** transmission [or equivalents like **spoken** transmission; or **oral** lore; or **oral** tradition]

[10m] A “turn” described by this word defines the principle that different epistemologies see different [emphasize] *worlds* than Western thought, rather than just different worldviews. The noun form of this term describes the study of being.

ANSWER: **ontological** [or **ontology**; accept **ontological** turn]

[10h] Many knowledge systems consider knowledge of an object’s *whakapapa* (“FAH-kah-pah-pah”), or this concept, to be legitimate. This concept names Michel Foucault’s follow-up to the archaeological method, which pushed back on the notion of historical trends.

ANSWER: **genealogy** [or **genealogies**; or **généalogie**; accept **kinship**]

<Philosophy>

21. A pattern that consists of smiling yellow faces among pink flowers called “Cherry Blossom” was created for this fashion house by Takashi Murakami. For 10 points each:

[10m] Name this French fashion house whose creative director from 1997 to 2014 was Marc Jacobs. Its products include the oft-copied checkerboard “Speedy” bag.

ANSWER: **Louis Vuitton** [or **LV**; or **Louis Vuitton** Malletier]

[10h] In 2018, this CEO of the label Off-White became Louis Vuitton’s artistic director for menswear. This designer was dogged by plagiarism allegations for the claim that an existing design can be made original by changing it by three percent.

ANSWER: Virgil **Abloh**

[10e] In 2021, Abloh unveiled a collaboration between Louis Vuitton and this other company, based on the latter’s “Air Force 1” sneaker. This brand decorates its Air Max and Air Jordans with its “swoosh” logo.

ANSWER: **Nike**, Inc

<Other Arts>