

Penn Bowl 2018

Packet 1

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Tossups

1. **Robert Graves proposed that this figure was meant as a calendar symbol, and one hero was sent to kill this figure because Proteus thought his wife Antea had a crush on him. Aeneas sees this creature “armed with torches” while descending to the Underworld; it also names Gyas’s ship at Anchises’ funeral games and is featured on Turnus’s helmet. Polyidus told a hero how to obtain a key ally for fighting this monster after Iobates asks him to remove it from Lycia; that horse was acquired via the (*) golden bridle. This mother of the Sphinx and Nemean Lion was suffocated by a lead-tipped arrow shot by a man who later met his death by gadfly. It was the child of Typhon and Echidna. This monster was killed by Bellerophon riding Pegasus. For 10 points, name this fire-breathing monster with a lion’s body, a goat head on its back, and a serpent’s tail.**

ANSWER: chimera

<JC, Mythology>

2. **A non-canonical receptor for this hormone contains a disordered C-terminal ES domain and is called ETTIN (“ate-in”). NPA and TIBA (“T-I-B-A”) inhibit the transport of this hormone. Another receptor for this hormone binds to ASK1 (“ask-one”), ASK2, and AtCUL1 (“at-cull-one”) to form an SCF-ubiquitin (“S-C-F-yoo-BICK-wit-in”) ligase complex; that receptor for this hormone is TIR1 (“T-I-R-one”). The anionic (“AN-ionic”) form of this hormone is transported by (*) PIN (“pin”) proteins. Darwin showed that covering the tip of a coleoptile (“ko-lee-OP-tile”) prevents the release of these compounds. IAA is the most potent one of these compounds, a synthetic variety of which is called 2,4-D, or Agent Orange. By activating expansins, these compounds stimulate stem elongation in a process described by the acid growth hypothesis. For 10 points, name these plant hormones that mediate phototropism, gravitropism, and apical dominance.**

ANSWER: auxins

<AP, Biology>

3. **17th-century scholars of this philosophical tradition proposed the Hylarchic Principle and the idea of Plastic Nature as intermediate causal agents. In *On the Egyptian Mysteries*, another philosopher of this tradition advanced the rituals of theurgy in order to achieve henosis and tried to provide a philosophical justification for religious rituals and divination. That philosopher, (*) Iamblichus (“eye-AM-blih-cus”), was responding to another thinker in this tradition who introduced a “scale of being” known as his namesake tree in the *Isagoge* (“ICE-ah-go-jee”). The founder of this school described the *nous* (“noose”), or consciousness, emanating from the One in his *Enneads*, which also discusses the Demiurge. For 10 points, name this philosophical tradition advanced by Porphyry and Plotinus that built on the work of the founder of the Academy, a Greek philosopher who postulated the theory of Forms.**

ANSWER: Neoplatonism [or Neoplatonists; or Cambridge Platonism; or Cambridge Platonists; prompt on partial answers such as Platonism]

<NR, Philosophy>

4. **Quintin Barry’s analysis of this war covers one man’s unsuccessful regime as President of the Government of National Defense. The opposing armies reflected their countries’ social structures according to a landmark**

account of this war by Michael Howard. Eugen Weber's account of a country's rural modernization begins with this war. Geoffrey Wawro's book on this war discusses the surprising ineptitude of an army that used advanced weaponry like the Reffye *mitrailleuse* ("mee-try-YUHZ") and the (*) chassepot ("shoss-POH") rifle at battles such as Mars-la-Tour and Gravelotte. Karl Marx wrote *The Civil War in France* during the close of this war, during which Adolphe Thiers ("tee-AIR") deployed the army to suppress the Communards. For 10 points, name this 19th-century war that saw Napoleon III captured at the Battle of Sedan by Otto von Bismarck's forces.

ANSWER: Franco-Prussian War [or Franco-German War]

<NR, European History>

5. This poet describes a feeling that is "sweeter than the flesh of hard apples is to children" and says that he is indifferent to "Flemish wheat or English cottons." A narrator by this author declares "I am a slave of the Infernal Bridegroom," while another describes "the yellow and blue awakening of singing phosphorous" and says "I struck against... unbelievable Floridas." This author lamented "I took Beauty in my arms... and I insulted her" while describing a time when "my life was a banquet." This poet of a work with two (*) "Delirium" sections wrote about the title object claiming "Lighter than a cork I danced on the waves." Another of his works was inspired by his breakup with Paul Verlaine. For 10 points, name this French Symbolist poet of "The Drunken Boat" and *A Season in Hell*.

ANSWER: Jean Nicolas Arthur Rimbaud

<JC, European Literature>

6. Massive protests by members of this ethnicity led to US citizens evacuating from their country in Operation Silver Wake. A song contest organized by members of this ethnicity, Festivali i Këngës ("KUNG-uss"), has been held annually since 1962 and won a record 11 times by Vajë Zela ("VAH-cheh ZEH-lah"). The 1997 civil war in this ethnicity's home country was kicked off by its population losing over a billion dollars in government-endorsed pyramid schemes. Taking inspiration from (*) Mao Zedong, a leader of this ethnicity launched his own Cultural and Ideological Revolution and declared his state atheist. The only king of this ethnicity, who may have been the world's heaviest smoker, fled his country after it was invaded by Benito Mussolini. King Zog and Enver Hoxha ("HO-jah") were, for 10 points, of what ethnicity shared by pop singers Rita Ora and Bebe Rexha ("bee-bee REX-uh"), as well as the majority of Kosovo?

ANSWER: Albanians

<WD, European History>

7. In mechanical engineering, the shear rate of a fluid is represented by this letter with a dot over it. This letter represents the specific weight of a material. In electromagnetism, this letter represents the ratio of the magnetic moment of a particle to its angular momentum. This letter represents a quantity that is seven-fifths for a diatomic ideal gas and five-thirds for a monatomic one. A quantity denoted by this letter is equal to the hyperbolic cosine of the rapidity. This letter denotes the (*) gyromagnetic ratio and a quantity equal to the ratio of the heat capacity at constant pressure and constant volume. This letter represents a quantity equal to one over the square root of "one minus v -squared over c -squared," called the Lorentz factor. For 10 points, name this letter that names a type of radiation that is higher energy than X-rays.

ANSWER: gamma [or relativistic gamma; or gamma radiation]

<AP, Physics>

8. After this dynasty defeated Abd Allah ibn Buluggin and exiled him to Aghmat, he wrote an extremely self-effacing memoir about his fall from power called *The Tilyan*. This dynasty ended a system of payments called *parias*. This dynasty seized control of a key trade route by defeating the Magrawa tribe and taking over the city of Sijilmasa, and conquered Kumbi Saleh two decades later. Abdallah ibn (*) Yasin, the founder of this dynasty, acted as its spiritual leader, while Yahya ibn Umar controlled its military. El Cid fought this dynasty on

behalf of Castile and died during their siege of his capital at Valencia. Ishaq ibn Ali, its last king, was killed during an attack on this dynasty's capital of Marrakech by its successor dynasty. For 10 points, name this Berber dynasty in northwestern Africa and Spain that was succeeded by the Almohad Caliphate.

ANSWER: Almoravid Dynasty

<AJ, World History>

9. A song from this film was spoofed in an ad by Virginia congressional primary candidate Dan Helmer that went viral as the “worst ad of the 2018 elections.” In the film *Sleep with Me*, Quentin Tarantino makes a cameo at a party discussing the homoerotic subtexts of this film. Christine Fox was the real-life inspiration for a character in this film who is serenaded in a bar with a rendition of (*) “You’ve Lost That Loving Feeling” by the protagonist; that character is the astrophysicist Charlotte Blackwood. A planned 2020 sequel will cast Miles Teller as Bradley Bradshaw, the son of this film’s character Goose who dies in a forced ejection caused by an attempt to fly through Iceman’s washout and had earlier claimed to feel the “need for speed.” For 10 points, name this 1986 movie starring Tom Cruise as the naval aviator “Maverick” at the title flight school.

ANSWER: Top Gun

<NR, Trash (Film)>

10. The narrator of this book only smiles at a man who switches between English and French to note that “Man is born a coward.” A man in this book is suspected of cannibalism because he is found singing in the snow naked; that man and Chester find a guano island. A character in this book calls nature a “masterpiece” but notes that “perhaps the artist was a little mad” when describing how he shot three men before catching a butterfly; that character is (*) Stein. A man’s death is described as successful because he is “forgotten, unforgiven, and excessively romantic”; that death occurs when he is shot by Doramin for the death of his son. The title character of this novel marries Jewel in Hatusan after feeling guilty for letting Muslim pilgrims die on the sinking of the ship *Patna*. For 10 points, name this Joseph Conrad novel narrated by Marlow about the title disgraced sailor.

ANSWER: Lord Jim

<JC, British Literature>

11. Peter Diamond compared varying quantities of this factor in alternative Golden Age Paths as part of a neoclassical growth model. One of the most controversial aspects of MMT, or Modern Monetary Theory, is its claim that this factor is not detrimental to the economy. The relative strain that this factor has on the economy decreases with the introduction of negative real interest rates. The ratio of this amount to the (*) GDP of a country is used to calculate its burden on the economy, and it needs to be under 60 percent to fulfill the Euro convergence criteria. This factor has increased due to factors such as the Bush-era tax cuts and the increasing costs of providing Medicare and Medicaid. For 10 points, name this measure of the amount of money owed by the United States, which surpassed 21 trillion dollars in March 2018.

ANSWER: national debt [accept government debt or public debt; prompt on partial answer; prompt on deficit; do not accept or prompt on “household debt”]

<AJ, Social Science (Economics)>

12. In this polity, Abigail Campbell led the female half of a Patriots League that organized monster meetings to promote a petition that was signed by 95 percent of its adult population. Bill Clinton signed the Apology Resolution in 1993 to acknowledge the wrongs that America had inflicted on this polity. After John L. Stevens ordered US Marines to assist in the coup against this polity led by the Committee of Safety, Congress concluded that he had acted illegally in the (*) Blount Report, which was later contradicted by the Morgan Report. Francis G. Newlands sponsored a namesake resolution that was signed by William McKinley to annex this

territory after its ruler was replaced with Sanford Dole's sugar planter-backed government. For 10 points, name this kingdom ruled by Queen Lili'uokalani that became the 50th state.

ANSWER: **Hawaii**

<NR, American History>

13. **Karlheinz Stockhausen's *Stop and Start* features seven groups of different instruments all paired with this instrument. It's not the piano, but Michael Riesman played this instrument in the recording of Philip Glass's *Glassworks*. This instrument plays an accompaniment to live soprano performance in Milton Babbitt's *Philomel*. This instrument was used to create an unusual 1968 recording of ten Bach pieces that included the third Brandenburg concerto (*) transcribed entirely for this instrument. One of these instruments created at Columbia-Princeton Music Center was frequently used by composers such as Halim El-Dabh and Wendy Carlos. For 10 points, name this instrument invented by Robert Moog that can convert electronic input into sounds.**

ANSWER: **synthesizer** [or Moog **synthesizer**; or **synth**; accept **electric organ** until "*Philomel*"; prompt on **MIDI**]

<PL, Music>

14. **One of this artist's works inspired a residence hall at the Massachusetts College of Art and Design that is made up of green panels interspersed throughout yellow panels that get lighter as they ascend. A section of another of this artist's works depicting "Armored Strength" was printed on a 2004 coin. A fire at Schloss Immendorf destroyed this artist's paintings that were commissioned for the University of Vienna's Great Hall. This artist of *Philosophy, Medicine, and Jurisprudence* painted Richard Wagner's interpretation of another (*) musician's Ninth Symphony in a painting with Typhoeus ("TIE-fee-us") and his three Gorgon daughters. A cliff covered in flowers supports a woman covered in circles and a man with rectangles kneeling and embracing in another of his works. For 10 points, name this painter of the *Beethoven Frieze* who was known for his use of gold leaf and painted *The Kiss*.**

ANSWER: Gustav **Klimt**

<MT, Painting>

15. **If a system conforms to the relationship put forth by this law, then Job's method can be applied to determine the stoichiometry of a binding event. When this law is applied to the atmosphere, it contains an air mass factor equal to the secant of the observed zenith angle. When this law is used to track a reaction, isosbestic ("eye-SOS-best-ick") points are used as references. Arising as a solution of the BGK equation, this law can be derived by treating molecules as opaque (*) disks. This law, which is used alongside devices like the nanodrop or another in which samples are diluted in quartz cuvettes, equates the product of path length, concentration, and the extinction coefficient to absorbance. For 10 points, name this law that underlies spectrophotometry.**

ANSWER: **Beer**-Lambert-Bouguer law [or **Beer**'s law]

<AP, Chemistry>

16. **A series of films from this country repeats the image of a zigzagging path outside the trilogy's title town. In a film from this country, a woman returns to her home country after getting a letter saying that her childhood friend will commit suicide during a solar eclipse. The director of that film, *The Sun Behind the Moon*, is from this country and starred in a film about a man arrested for impersonating him, in which all the participants in the trial played themselves. The director of that film from this country also directed a film in which Mr. Badii asks a soldier, a seminarist, and a taxidermist to bury him after he commits suicide. That director of (*) *Taste of Cherry* and *Close-Up* hails from this same country as the film *A Separation*. This country is home to directors Mohsen Makhmalbaf and Abbas Kiarostami. For 10 points, name this country depicted in the animated adaptation of Marjane Satrapi's *Persepolis*.**

ANSWER: **Iran**

<JC, Other Arts (Film)>

17. A novel by this author consists of a single sentence about the experiences of a heroin addict named Beach. Another story by this author tells about a relative of Kafka's Josephine, a mouse singer, who instead is a rat policeman. In a work by this author, priests become falconers to protect churches from pigeon droppings. In another work by this author, an investigation is derailed by a man urinating in churches; that novel has sections including "The Part about the Critics" and "The Part about (*) Amalfitano." In that novel, Oscar Fate is asked to cover a boxing match, while in another novel by him, Cesarea Tinajero is sought by the "visceral realists" including Ulises Lima. This author of *By Night in Chile* wrote his most famous novel about gruesome murders of women in Santa Teresa. For 10 points, name this author of *The Savage Detectives* and *2666*.

ANSWER: Roberto **Bolaño**

<JC, World Literature>

18. Leftist types of these objects include height-based and weight-based varieties and exemplify this object's "meldable" type. A "d-ary" type of this object improves Prim's algorithm. Robert W. Floyd developed an algorithm that converts a list into this type of data structure in big-O of n time. One type of these data structures performs unions in constant time because siblings are organized in cyclic doubly-linked lists; that is the (*) Fibonacci type. These data structures lend their name to a sorting algorithm that is generally slower than quicksort but has a better worst-case runtime. Priority queues often use the "min" type of these data structures to retrieve minimum values, and these structures support "decrease key" operations to insert objects in big-O of $\log n$ time. For 10 points, name this data structure that holds a "pile" of data in which the key of a child node is greater than or equal to the key of its parent node.

ANSWER: **heaps** [accept **tree** until "d-ary"]

<AP, Other Science (Computer Science)>

19. The belief that married men are less prone to impure thoughts than single men influenced a debate over the arrangement of two types of these objects. These objects must be treated with a mixture of wasp enzyme and tree bark, salt, and flour, to be valid. These objects can be created out of *duchsustus* ("dookh-soos-toos") or *gevil* ("g'VEEL"), and versions of them with vowels added are known as *tikkun* ("tee-KOON"). Silver rods shaped like hands, called (*) *yads* ("yodds"), are used to avoid damage to these objects, which are used after a prayer that begins "barchu et adonai hamvorach" ("bar-HOO et ah-doh-NYE hahm-vo-ROCK"). These objects can be contained in black leather boxes worn on the arm or head known as *tefillin* ("tuh-FILL-in"), or they can be stored in the ark of a synagogue. For 10 points, name these handwritten copies of a Jewish holy book.

ANSWER: **Torah** scroll [or Sefer **Torah**; or **Tanakh**; prompt on tefillin, scroll, or book]

<JC, Religion>

20. In a short story by this author, a man fantasizes about tucking a picture of himself and a woman "eating fried onions under a magenta umbrella" inside his Russian grammar book. Another short story by this author ends with a boy going home by himself for the first time after he was involved in a car accident with his babysitter, who wanted to get fish from the market. This author of "Mrs. Sen's" wrote a story in which a married couple who has been estranged since the death of their stillborn child tell each other secrets each night when the (*) power is turned off, ending with Shoba's confession that she is moving out. In the titular story of her most well known collection, this author describes how a wife confesses an affair to her tour guide, Mr. Kapasi, and is fascinated by his titular job in a doctor's office. For 10 points, name this author of "A Temporary Matter" and "Interpreter of Maladies."

ANSWER: Jhumpa **Lahiri**

<MT, American Literature>

Bonuses

1. In one essay, this engineer described the “memex” (“MEM-ex”), an ultra-compressed encyclopedia that somewhat presages the Internet. For 10 points each:

[10] Name this engineer who wrote “As We May Think.” This administrator of the OSRD during World War II served as the dean of MIT engineering and founded Raytheon.

ANSWER: Vannevar **Bush**

[10] While working with Bush as a grad student, this man wrote a thesis proving that switching circuits could construct any Boolean logic function. This father of information theory names a communication limit through a noisy channel.

ANSWER: Claude **Shannon**

[10] The Nyquist–Shannon theorem states that for full reconstruction, sampling a signal must be done at two times this maximum property of the signal. FFTs convert the time domain to this domain, which is measured in hertz.

ANSWER: **frequency**

<JC, Other Science (Engineering)>

2. In a section on this campaign, Orderic Vitalis wrote “I can say nothing good about this brutal slaughter. God will punish him.” For 10 points each:

[10] Name this campaign begun in response to the murder of Robert de Comines, Earl of Northumbria, that saw mass slaughter and burning from the Humber to the Tees to subjugate York and rebels in support of Edgar Ætheling.

ANSWER: **Harrying of the North**

[10] This Norman king ordered the Harrying of the North in order to consolidate his control over England after defeating Harold Godwinson at the Battle of Hastings.

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

[10] A king of Scotland with this name, the brother-in-law to Edgar Ætheling, frequently warred with England over Northumbria. Another Scottish king of this name was nicknamed “the maiden” for dying unmarried.

ANSWER: **Malcolm**

<NR, European History>

3. In a novel by a man who was once this type of person, he describes using drugs like “brown-brown” and “white pills.” For 10 points each:

[10] Name this type of person. Ishmael Beah’s (“BAY-ah’s”) *A Long Way Gone* is an account of his time as one of these people, who were commonly recruited by the Revolutionary United Front at a young age.

ANSWER: child **soldier** [accept equivalents]

[10] Ishmael Beah wrote the foreword to this book by Mariatu Kamara that depicts her experiences at the hands of child soldiers in the RUF.

ANSWER: *The **Bite of the Mango***

[10] In this Chimamanda Ngozi Adichie novel, the thirteen-year-old Ugwu works as a houseboy for the math professor Odenigbo before he is conscripted as a child soldier. This novel’s title comes from the flag of Biafra.

ANSWER: ***Half of a Yellow Sun***

<MT, World Literature>

4. A salesman of this product hired a man to call him “Your Royal Highness” in traveling shows and claimed that his family was killed by an angry tribe of Himalayan yak herders who made him their prince. For 10 points each:

[10] Name these products sold by a company wrongly named for the Kickapoo Indians, as well as by Clark Stanley, who demonstrated its production by publicly decapitating and boiling snakes at a certain event.

ANSWER: **patent medicine** [or **nostrum**; accept **fake medicine** or equivalents; prompt on **medicine**; anti-prompt (i.e., ask “can you be less specific?”) on **snake oil**]

[10] Stanley marketed his snake oil at this event that featured the White City and H. H. Holmes's "Murder Castle."

ANSWER: **Chicago World's Fair** [or World's **Columbian Exposition**; or **1893 World's Fair**]

[10] This popular soda was originally sold as a patent medicine that could supposedly cure morphine addiction, impotence, and headaches. It was created by John Pemberton and did originally contain cocaine.

ANSWER: **Coca-Cola** [or **Coke**]

<JC, American History>

5. A work in this movement by Audrey Flack, *Wheel of Fortune*, is a modern memento mori, including tarot cards, lipstick, and a skull. For 10 points each:

[10] Name this movement whose practitioners include John Baeder and Richard Estes. It is named for a camera-like level of accuracy in images.

ANSWER: **photorealism** [or **hyperrealism**; or **superrealism**; do not accept or prompt on "realism"]

[10] This photorealist strapped a brush to his arm after he became paralyzed and divided his self-portrait into many "pixels" of concentric circles.

ANSWER: Chuck **Close** [or Charles Thomas **Close**]

[10] "Ralph's" is a shiny one of these places in a painting by Ralph Goings. George Segal and Duane Hanson respectively created white plaster figures and fully realistic sculptures of people at one of these locations.

ANSWER: **diner** [prompt on **restaurant** or **cafe** or equivalents]

<JC, Painting>

6. In one epic, this character's wife says that Emperor Hugo is better-looking than him, so he goes to visit Hugo in his fancy rotating palace on a pole. For 10 points each:

[10] Name this character who takes his friend, the elf-knight Egeast, to steal from his traitorous brother-in-law Eggeric van Eggermonde. Many epics, including *Morgante*, focus around this man's subordinates.

ANSWER: **Charlemagne**

[10] In medieval folklore, Charlemagne is described in an epic poem titled after "The Song of" this man, his most famous paladin.

ANSWER: **Roland**

[10] This other paladin of Charlemagne betrayed his army to the Muslims and led to the Battle of Roncevaux Pass. For his betrayal, four fiery horses tear him limb from limb.

ANSWER: **Ganelon**

<JC, Mythology>

7. The strongest known superacid consists of hydrogen, antimony, and this element. For 10 points each:

[10] Name this halogen that forms a weak acid when bonded to hydrogen. This element's 19 isotope is NMR active.

ANSWER: **fluorine** [or **F**]

[10] A buffered version of hydrofluoric acid is used in this process to remove layers from the surface of a silicon wafer in order to make a printed circuit board. Silicon nitride is a common mask in this process.

ANSWER: **etching** [accept more specific answers, like wet **etching**, dry **etching**, reactive ion **etching**, plasma **etching**]

[10] Hydrofluoric acid was first isolated by this chemist. He is the namesake of disodium nitrosodisulfonate ("nitroso-disulfonate"), an oxidizing agent that is also a persistent radical salt.

ANSWER: Edmond **Frémy**

<AP, Chemistry>

8. The title character of this novel is described as "a nobleman, more remarkable for his singularities, than his rank" who has a "dead grey eye." For 10 points each:

[10] Name this novel written in “The Year Without a Summer.” In it, the suave title character kills Ianthe (“eye-ANN-thee”) and dies laughing. He later reappears to seduce the protagonist Aubrey’s sister and vanishes.

ANSWER: The *Vampyre*

[10] Polidori’s *The Vampyre* was composed in a ghost story contest with Lord Byron and the Shelleys. This Mary Shelley novella about the title “modern Prometheus” also came out of that contest.

ANSWER: *Frankenstein; or, a Modern Prometheus*

[10] The Creature tells Frankenstein that he will “be with him on his wedding night.” Frankenstein interprets this as a threat against himself and is thus unprepared when the Creature kills this woman, his fiancée.

ANSWER: Elizabeth Lavenza [accept either name]

<MT, British Literature>

9. Reasons for this conflict include differences over who should be the leader of the Christian Church and whether leavened or unleavened bread should be used for the Eucharist. For 10 points each:

[10] Name this event that resulted in the division of the Christian Church into the Catholic and Eastern Orthodox Churches.

ANSWER: Great Schism [or East-West Schism; or Schism of 1054]

[10] During the Great Schism, Humbert of Silva Candida excommunicated Michael Cerularius, the Patriarch of Constantinople, on behalf of this pope, who was in turn excommunicated by Michael. The Normans briefly held this pope hostage after the Battle of Civitate.

ANSWER: Leo IX [or Bruno of Egisheim-Dagsburg; prompt on Leo]

[10] Those mutual excommunications were abolished by Pope Paul VI and Patriarch Athenagoras during this ecumenical council. This council absolved the Jews of the blood libel and made the Latin mass optional.

ANSWER: Second Vatican Council [or Vatican II]

<AJ, European History>

10. This company’s CEO Fredrik Wester got his start in the gaming industry by selling pirated games with his brother in his teens. For 10 points each:

[10] Name this Swedish video game publisher of games such as *Cities: Skylines* and *Magicka* (“MAGIC-uh”). Under the leadership of Johan Andersson, its development studio produces games in the “grand-strategy” genre.

ANSWER: Paradox Interactive [or Paradox Development Studio]

[10] This flagship Paradox grand-strategy game allows the player to pick any country starting in 1444 and play sandbox-style through to 1821.

ANSWER: Europa Universalis IV [or EU4; prompt on partial answer]

[10] This other Paradox series focuses on nationalism and industrialization during the 19th-century period of British ascendancy. This series is named for the British queen who lends her name to that period.

ANSWER: Victoria II [or Victoria: An Empire Under the Sun; or “Vicky 2”]

<NR, Trash (Video Games)>

11. Joseph LeDoux theorized that this structure has a high and low pathway, which allows some stimuli to travel straight to this structure from the thalamus without stopping in the cortex. For 10 points each:

[10] Name this brain structure that is responsible for fear, arousal, and other emotional responses.

ANSWER: amygdala

[10] The amygdala has connections to this other part of the brain, which is responsible for filtering during goal-directed actions and for controlling executive functions.

ANSWER: prefrontal cortex [or PFC; prompt on frontal lobe]

[10] Bilateral lesions in the amygdala cause this syndrome, which is characterized by hyperphagia, hyper-orality, and hypersexuality.

ANSWER: Klüver–Bucy syndrome

<MT, Biology>

12. The title character of this novel is able to see colorful geometric shapes when she focuses on the movement of elevators. For 10 points each:

[10] Name this novel in which Lila Mae Watson is the first black woman in the title sect of psychic elevator inspectors, who struggle against the powerful Empiricist inspectors.

ANSWER: *The **Intuitionist***

[10] This author of *The Intuitionist* won the Pulitzer for a novel about slaves escaping via a literal subway, *The Underground Railroad*. He wrote about watching the Olympics with the “Sebald 3000” app in “Hard Times in the Uncanny Valley.”

ANSWER: Colson **Whitehead**

[10] The protagonists of *The Underground Railroad* are Cora and this man. In another work, a funeral oration claims “I come to bury” a man of this name, “not to praise him,” and begins “Friends, Romans, countrymen.”

ANSWER: **Caesar** [or Julius **Caesar**; prompt on **Julius**]

<JC, American Literature>

13. A gauge (“gayj”) named for this quantity contains a Wheatstone bridge whose resistance varies with force. For 10 points each:

[10] Name this quantity, the percent change in length in a system in response to applied stress. In the linear elastic region before the yield point, stress over this quantity equals Young’s modulus.

ANSWER: **strain**

[10] A stress tensor named after this man defines the state of stress at a point inside a material relative to vectors that are normal to perpendicular surfaces. That tensor is used for small deformations only.

ANSWER: Augustin-Louis **Cauchy** (“koh-SHEE”)

[10] This two-dimensional graphical representation of the Cauchy stress tensor’s transformation law plots the shear force against the normal force.

ANSWER: **Mohr’s circle**

<AP, Physics>

14. This man wrote a study of Kikuyu society titled *Facing Mount Kenya* that supported female genital mutilation. For 10 points each:

[10] Name this activist and politician. He was the first president of Kenya.

ANSWER: Jomo **Kenyatta**

[10] Kenyatta was influenced by the functionalism of this man, whom he studied under at the London School of Economics. This author of *Crime and Custom in Savage Society* wrote the foreword to *Facing Mount Kenya*.

ANSWER: Bronislaw **Malinowski**

[10] This other student of Malinowski, who defined himself as both rationalist and functionalist, wrote introductions to the works of Lévi-Strauss. He criticized his contemporaries’ overgeneralizations in “Rethinking Anthropology.”

ANSWER: Edmund **Leach**

<MT, Social Science (Anthropology)>

15. During this man’s rule, families had to pay a tax known as the “wasted bullet” to kebele (“kuh-bay-lay”) militias to receive the bodies of their relatives. For 10 points each:

[10] Name this dictator who massacred thousands in the Qey Shibir to stamp out the EPRP and MEISON parties.

ANSWER: **Mengistu** Haile Mariam

[10] Mengistu led this country, where the communist Derg overthrew Emperor Haile Selassie in 1974.

ANSWER: **Ethiopia**

[10] Mengistu's regime defended this namesake disputed region against a Somali invasion with massive aid from the Soviet bloc, putting the US in the odd position of supplying Marxist Somalia.

ANSWER: **Ogaden** War

<AJ, World History>

16. Answer the following about comparative philosophy, for 10 points each.

[10] The University of Hawai'i philosophy department publishes this journal of comparative philosophy. Founded by Charles A. Moore in 1951, it was an outgrowth of the department's East-West conferences.

ANSWER: ***Philosophy East and West***

[10] This other journal published by Springer calls itself "A Journal of Comparative Philosophy." Focusing on Chinese philosophy, it is named for the "Way" that leads to the underlying order of the universe.

ANSWER: ***Dao*** [or ***Daoism***; or ***Taoism***]

[10] *Dao*'s first issue appropriately contains several articles on this philosopher, the founder of Taoism. The *Tao Te Ching*, which he is said to have written, is sometimes simply referred to by his name.

ANSWER: **Laozi** ("LAO-tsu") [or **Lao-Tze**; do not accept or prompt on "Zhuangzi"]

<JK, Philosophy>

17. This work urges the reader to develop "discernment," the ability to distinguish between good and evil "spirits," by performing the namesake practices for 30 days. For 10 points each:

[10] Name this book inspired by visions gained by praying in a cave after its author, Ignatius of Loyola, injured his legs during the Siege of Pamplona.

ANSWER: ***Spiritual Exercises*** [or ***Exercitia spiritualia***]

[10] Ignatius of Loyola was the founder of this Catholic religious order, whose members Francis Xavier and Matteo Ricci traveled to found its many missions. Pope Francis belongs to this order.

ANSWER: **Jesuits** [or **Society of Jesus**; or **Societas Jesu**]

[10] The *Spiritual Exercises* popularized this twice-a-day prayer as a form of spiritual self-review and laid out five steps for performing it, going from thankfulness to amendment.

ANSWER: **examen** [prompt on examination of conscience]

<JC, Religion>

18. This foodstuff is the basis of *kadhi*, *lassi*, and *raita* ("RYE-tuh"). For 10 points each:

[10] Name this food that goes well with many ingredients used in Indian cooking, where it is typically referred to as *dahi*. This dairy product's Greek form is often used to make *tzatziki* ("tsat-SEE-kee").

ANSWER: **yogurt** [or **curd**]

[10] Yogurt is used in a variation of this dish that consists of small, round *golgappa* served with flavored water, various chutneys, potatoes, and *chaat masala*. This dish is a popular street food all over India.

ANSWER: **panipuri** [or **paani ke patashe**; or **fulki**; or **phuchka**; or **pakodi**; or **gup chup**]

[10] The *imli* sweet chutney typically served with *panipuri* is made from the sticky brown pulp produced by this leguminous tree. A traditional Filipino dish called *sinigang* uses this ingredient to produce a unique, sour taste.

ANSWER: **tamarind**

<AP, Other Arts (Food)>

19. In a short story that takes place in this city, mustaches are described as something "to which the better part of a life has been devoted." For 10 points each:

[10] Name this city, the setting of a story that features womens' scarves as a "sea of butterflies... rippling above black beetles of the male sex" and ends by describing the devil lighting lamps.

ANSWER: **St. Petersburg**

[10] In this story set in St. Petersburg, Piskaryov falls in love with a dark-haired woman, but kills himself after finding out she is a prostitute. He is contrasted with Pirogov, who eats puff pastries and is beaten up by a German tinsmith in this work.

ANSWER: “**Nevsky Prospekt**”

[10] This author of “Nevsky Prospekt” wrote about Khoma getting ridden by a witch in “Viy” (“vee”). He wrote “The Overcoat” and “The Nose.”

ANSWER: Nikolai Vasilievich **Gogol**

<LC, European Literature>

20. Two politicians in this opera exchange insults in alphabetical order and teach prince Go-go to ride a rocking-horse, and scenes in this opera open with car horns, doorbells, and alarm clocks. For 10 points each:

[10] Name this “anti-anti-opera” in which the prince of Hell, Nekrotzar, presides over chaotic events including Astradamors’ killing of Mescalina and eventually shrinks into oblivion during a “mirror canon.”

ANSWER: *Le* **Grand Macabre**

[10] This Hungarian composer wrote *Le Grand Macabre*, *Atmosphères*, *Lux Aeterna*, and *Poème symphonique*, a work for 100 metronomes meant to showcase “micropolyphony.”

ANSWER: György **Ligeti**

[10] Ligeti’s *Atmosphères* and *Lux Aeterna* were featured in *2001: A Space Odyssey* along with a rising “C-G-C” brass motif from this German Romantic composer’s tone poem *Also Sprach Zarathustra*.

ANSWER: Richard **Strauss**

<JC, Music>

