

**Penn Bowl 2022: Fla Pornanlo  
Packet 13 (Finals 1)**

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Tossups

**1. In Paula Vogel’s play *Indecent*, the stage manager Lemml (“LEM-uhl”) encounters this non-Jewish author at the “Hell Hole” bar, where he quotes his own line about “dat ole davil sea” to describe playwriting. In *Indecent*, the actor who plays this author doubles as Sholem Asch, whom this author famously supported during Asch’s obscenity trial for *God of Vengeance*. Longshoremen order drinks from Johnny the Priest’s bar in the first act of a play by this author whose title character boards a (\*) barge that rescues her eventual lover Mat Burke. A play by this author concludes with a woman reminiscing on her youth in a convent as she holds her coveted wedding dress. For 10 points, name this playwright of *Anna Christie* who created the Tyrone family in *Long Day’s Journey into Night*.**

ANSWER: Eugene O’Neill

<Prather + Petrosino, American Literature>

**2. A piece in this musical form begins allegro vivace with the left hand playing eighth note G major triads as the right hand plays the rising phrase: quarter note B, eighth notes D-D-G-G, quarter note B. The hunt-themed last movement from one composer’s fourth horn concerto uses this form, which was used for an unrelated piano piece titled with the nonsense term “ingharese” (“in-gah-RAY-zay”). A 2/4 (“two-four”) movement in this form begins on beat 2 with the right hand playing the 16th notes B - A - G-sharp - A - up to C, then repeated higher as D - C - B - C - up to E; that is the last movement of (\*) Mozart’s Piano Sonata No. 11. Beethoven’s *Rage Over a Lost Penny* uses this form, which is defined by a main theme that alternates with one or more new themes, resulting in structures like A-B-A-C-A. For 10 points, name this form used by Mozart for a movement labeled “alla turca.”**

ANSWER: rondo [or rondeau; accept rondo *alla turca* or “Turkish Rondo”; prompt on march by asking “that movement has a structure based on what established musical form?”]

<Harvey, Classical Music & Opera>

**3. Influenced by its western neighbors, a civilization in this modern-day country is often dated into phases based on designs of cylindrical seals made of precious stones. A still-unfound city in this modern day country, Awan, names an early dynasty of its oldest civilization. A palace in this modern-day country included the “Hall of Hundred Columns” possibly used as a treasury or for holding audiences. It’s not China, but a civilization in this country built the city of (\*) Anshan. A ruler of this modern-day country constructed two Apadana palaces, including one in the ancient city of Susa. This country, the site of the cliff-face Behistun Inscription, was home to the millenia-old Elamites, who maintained their language under the Medes and their successors. For 10 points, name this country home to the ancient city of Persepolis.**

ANSWER: Iran [or Islamic Republic of Iran]

<Christensen, Other History (Ancient)>

**4. One problem in this class can be solved by the Chaff algorithm, which is an enhancement of the DPLL algorithm. The clique problem, which finds a complete subgraph of a graph, is in this class. Finding the minimum spanning tree for a subgraph and finding a Hamiltonian path on a graph are problems in this class. In 1972, a set of 21 problems in this class were published by Richard Karp. Converting inputs to conjunctive normal form is one step in the Cook–Levin theorem, which shows that the (\*) Boolean satisfiability problem is in this complexity class. A problem in this class is deciding which items with given weights and values to take in a bag. For 10 points, the knapsack problem and the traveling salesman problem belong to which complexity class that contains the hardest NP problems?**

ANSWER: NP-complete [prompt on NP or NP-hard before mentioned, but reject any other answer that contains NP and a term other than complete or hard]

<Law, Other Science>

**5. In one text, Subhūti (“soo-BOO-tee”) describes himself as having obtained the Eye of this concept during a discourse related to this concept. Xuánzāng (“shwon-dzong”) translated a “Large” text partially named for this concept. Vipassanā (“vih-PUH-suh-nah”) progresses through stages named for and corresponding to specific instances of this concept. The bodhisattva Mañjuśrī (“MUN-joo-shree”) is considered to be the embodiment of this concept. The Eightfold Path has a threefold division into parts named for virtue, meditation, and this concept. The (\*) Diamond Sutra belongs to a group of sutras partially named for this concept, as does the Heart Sutra, whose full name is the Heart of the Perfection of this concept. This concept is known by the Sanskrit term prajñā (“PRUG-nyah”). For 10 points, name this Buddhist concept, the state that is attained by eliminating illusion and ignorance.**

ANSWER: wisdom [or knowledge; accept perfection of wisdom; accept prajñā, jñāna, paññā, ñāna, or prajñāpāramitā before “prajñā” is read; prompt on enlightenment]

<Hinkle, Religion>

**6. A play by this author opens with peasant girls singing hymns and shelling almonds before the jolly title character enters with his three boys mothered by three different women. A family created by this author gossips about a mother who is only allowed to visit her daughter by shouting up to her on a balcony five stories above. This author wrote about a rake in his rural comedy *Liola*, the first play in his collection (\*) *Naked Masks*. In a play by this author, Lady Frola and Mr. Ponza both accuse each other of insanity when they give conflicting accounts of the identity of Ponza’s second wife. A metatheatrical play by this author features characters like The Stepdaughter and The Father interrupting a rehearsal of *Mixing It Up*. For 10 points, name this Italian playwright who wrote *Right You Are (If You Think So)* and *Six Characters in Search of an Author*.**

ANSWER: Luigi Pirandello

<Harvey, European Literature>

**7. The Ryu–Takayanagi conjecture states that a thermodynamic quantity in Anti-de Sitter space is equal to this quantity over 4 times big G. This quantity divided by 4 times the Planck length squared is proportional to entropy in a formula co-discovered by Jacob Bekenstein. A 2021 study on GW150914 data by Isi et. al. shows that the total amount of this quantity, along with mass, did not decrease after a (\*) black hole merger. A 1975 paper demonstrated that quantum effects in a black hole violate the weak energy condition, causing this quantity to decrease over time in contradiction with the classical second law of black hole thermodynamics. Hawking radiation causes the decrease of this extensive property. For 10 points, what quantity of black holes is equal to four pi times the Schwarzschild radius squared and could be reported in square kilometers?**

ANSWER: surface area of a black hole [accept area of the event horizon; prompt on size of a black hole; prompt on size of the event horizon; reject “volume” as all the clues only apply to surface area]

<Harvey, Physics>

8. This commodity names a “Great Race” in 1866 in which clipper ships competed to be first to reach markets; those boats were quickly obsoleted by the completion of the Suez Canal. A 2017 book that links the rise of this commodity to the spread of empire and consumerism was written by Erika Rappaport. After beginning private businesses in this commodity, Joseph Banks supported the (\*) McCartney Embassy to reduce the massive trade deficit it created. To accommodate for that deficit by trading this commodity for silver, the British East India Company grew opium in Bengal to smuggle illegally, leading to the Opium Wars. A 1773 Act regulating this commodity was passed after Parliament maintained the Townshend Acts’ tax on it. For 10 points, name this commodity that during the Industrial Revolution became central to British mornings along with sugar.

ANSWER: tea [accept tea leaves]

<Christensen, European History>

9. A character played by Georgian wrestler Kola Kwariani is enlisted to rob one of these places in a film whose central thief wears the same mask donned by the bank robbers at the start of *The Dark Knight Rises*. A character mutters “aw, what’s the difference” after being apprehended for robbing one of these places, another of which is robbed in a movie by a character who uses the code word “cauliflower” after torching the car of a Seth MacFarlane-played character. Artificial salt and gummy bears are used to blow up (\*) cash tubes in one of these locations in a film that ends with a girl singing “Country Roads” at a children’s beauty pageant. Channing Tatum and Adam Driver play the Logan brothers in a movie about robbing one of these places. For 10 points, name this type of place where Ricky Bobby wins many races in *Talladega Nights*.

ANSWER: racetrack [or speedway; or horse-racing track; or NASCAR track; or Charlotte Motor Speedway; accept horse races]

<Laurie, Popular Culture>

10. During the Gigantomachy, this deity killed the giant Picolous when he attempted to go after this deity’s daughter; the giant’s spilt blood grew into an herb known as moly. The jealousy of Clytie led to one lover of this deity, Leucothoe, to be buried alive and turned into a frankincense tree after death. Phaëthusa and Lampetië were daughters of this deity that lived on the island of Thrinacia. After failing to inform Ares about the arrival of this deity, the soldier Alectryon was turned into a (\*) rooster. All of Odysseus’s men were killed by Zeus after they foolishly sacrificed this god’s sacred cattle. Daughters of this god turned into black poplar trees in mourning for a son of this deity, Phaethon, who lost control of the chariot that this god rides across the sky every day. This god was often identified with Apollo. For 10 points, name this Greek god of the sun.

ANSWER: Helios [or Helius]

<Tsai, Mythology>

11. Albert J. Myers’s positive reports from the British Army influenced a general fighting these people to institute a fort-to-fort heliograph system under Alvarado Fuller. Lozen, a warrior of these people who could legendarily divine enemies’ locations, fought alongside her brother Victorio during a series of skirmishes. These people and their Yavapai allies were massacred by US troops and the O’odham people at Camp Grant. George Bascom hanged some of these people after alleging that they kidnapped the 12-year-old (\*) Mickey Free. George Crook fought the Chiricahua subgroup of these people, who were forced onto the San Marcos reservation. These people, who were led by Cochise, surrendered at Skeleton Valley to Nelson Miles. For 10 points, name these people who fought U.S. troops under Geronimo.

ANSWER: Apache

<Laurie, American History>

**12. An intermediate that is exactly halfway through this biological process is called the Janus intermediate and may be followed by distal or alternating pathways. An enzyme used in this process is homologous to the light-independent form of protochlorophyllide reductase. The activity of that enzyme used in this process is described by the Lowe–Thorneley kinetic model. The enzymes that carry out this process are encoded by the (\*) *nif* genes. The oxygen that is required for this process is transported by leghemoglobin. The enzyme that is responsible for this process uses an iron-molybdenum cofactor called FeMoco. This process is carried out by symbiotic bacteria known as rhizobia that live in the root nodules of legumes. For 10 points, name this biological process carried out by diazotrophs, the production of ammonia from the most abundant atmospheric gas.**

ANSWER: nitrogen fixation

<Hinkle, Biology>

**13. E.E. Schattschneider advocated for the “responsible” model of these organizations and emphasized the need for them to be competitive. In one book, Giovanni Sartori criticized the use of spatial models to study these organizations and used cross-national data to study their fragmentation. In a book titled for these organizations, Robert Michels argued they become dominated by small groups of people in his (\*) “iron law of oligarchy.” Plurality systems tend to benefit two of these organizations according to Duverger’s law. Two of these organizations are often described as “realigning” after 1896 and 1932 that resulted in the creation of new coalitions. George Washington’s farewell address alludes to two of these organizations while denouncing factionalism. For 10 points, a system dominated by two of what organizations characterizes American politics?**

ANSWER: political parties [accept two-party system]

<Christensen, Social Science (Political Science)>

**14. In a poem titled for a place in this city, the speaker laments, “O I loved too much and by such and such is happiness thrown away.” That poem describes a girl with “dark hair” who spurned the poet and is titled for one of this city’s roads. In a novel, a woman remembers her boyfriend calling her a “flower of the mountain” before proposing to her on a peninsula northeast of this city.” Earlier in that novel set in this city, fireworks explode overhead as a man (\*) masturbates on a beach. Landmarks in this city such as its Martello tower and Davy Byrne’s pub are visited each year on June 16th in honor of a certain novel character. That character lives at 7 Eccles Street in this city and visits its Sandymount Strand in the chapter “Nausicaa.” For 10 points, name this city where Leopold Bloom wanders in James Joyce’s *Ulysses*.**

ANSWER: Dublin (The unnamed poem is Patrick Kavanagh’s “On Raglan Road,” and the peninsula is Howth Head.)

<French, British Literature>

**15. The title of *Who Wants to Be a Millionaire?* was inspired by a song by this composer, who riffed off a Decadent poem for a song in which a woman tells her lover that sex with a rich “oilman known as Tex” is “here to stay” though she’ll always be “true to you, darlin’, in my fashion.” A tune by this composer compares a “beat-beat-beat of the tom-tom” to a voice “repeating / you, you, you.” A Caribbean dance inspired a song by this composer that was revived into a hit by (\*) Artie Shaw’s big band. The 2021 album *Love for Sale* by Tony Bennett and Lady Gaga is an homage to this composer, who wrote “You’re the Top” for a musical set on a cruise and a musical about Fred and Lilli’s attempt to adapt *The Taming of the Shrew*. For 10 points, name this composer of “Begin the Beguine,” “Night and Day,” and musicals like *Kiss Me*, *Kate* and *Anything Goes*.**

ANSWER: Cole Porter

<Perumalla, Other Fine Arts (Musical)>

16. The “wet computer” is sometimes named for scientists from this country who name a reaction that inspired the idea of noise-induced order. Those two chemists from this country name a transition metal ion-catalyzed reaction in which a bromate repeatedly reduces organic reductants in a non-linear manner, producing beautiful concentric rings. In this country, a series of quartz capillaries containing a substance with an anomalous boiling point and viscosity led to the announcement of non-existent “polywater.” The (\*) BZ reaction is an oscillating clock reaction named for scientists from this country. Element number 105 was discovered at this country’s “element factory,” the Joint Institute for Nuclear Research in Dubna. For 10 points, name this birth country of the formulator of the periodic table, Dmitri Mendeleev.

ANSWER: Russia [or Russian Federation; accept Soviet Union or USSR or Union of Soviet Socialist Republics]  
<Harvey, Chemistry>

17. This country built fifteen Culture Palaces and fifteen Cultural caravans to service rural areas in an effort to fight cultural illiteracy. *Sha’ib* cassettes were targeted by noise pollution measures in this country. Vodafone shut down internet access during riots partially triggered by repeated three-year invocations of the Emergency Law in this country. Protestors shouted “where is my breakfast” during the 1977 “bread riots” in this country. The “Blind Sheikh” Omar Abdel-Rahman issued a *fatwa* against a leader of this country. Members of (\*) al-Jama’a al-Islamiyya assassinated a leader of this country whose economic openness policies were called *infitah*. The Muslim Brotherhood was legalized in this country following a 2011 revolution. For 10 points, name this country ruled by Anwar Sadat and Hosni Mubarak.

ANSWER: Egypt [or Misr]  
<Laurie, World History>

18. An author in this language wrote, “I come in every age... Now I have come for the great revolution” in a poem that shares its title with a magazine he edited, *The Comet*. That author in this language declared, “I am cyclone, I am destruction” in a poem that repeats, “Ever high is my head!” Another author in this language wrote, “I hasten in fear lest thy gate be shut” in a poem that begins, “Time is endless in thy hands.” The (\*) “Rebel Poet” Kazi Nazrul Islam used this language, as does a poem that describes a place “where knowledge is free” and “where the mind is without fear.” The line, “Thou hast made me endless, such is thy pleasure” opens a collection in this language that was given an introduction by William Butler Yeats. For 10 points, name this language used to write *Gitanjali* (“gee-TAHN-juh-lee”) by Rabindranath Tagore.

ANSWER: Bengali [or Bangla]  
<French, World Literature>

19. According to Anniceris (“an-ee-SAY-ris”), this concept is derived from the particular ends of individual, specific actions. In one dialogue, Socrates argues that knowledge leads only a few people to achieve the unmixed form of this concept, which the title character claims that this concept is “the conqueror.” In the Republic, Socrates uses the “relativity” argument that many forms of this concept are actually just the (\*) lack of another. While talking with Protarchus, Socrates distinguishes between higher and lower kinds of this concept in the dialogue Philebus. Seeking out this concept was fundamental to a school of philosophy founded by Aristippus in the African city of Cyrene. A simple life focused on achieving this concept is the chief goal of Epicureanism. For 10 points, hedonism seeks to minimize pain and maximize what concept?

ANSWER: pleasure [accept hedone until hedonism is mentioned; prompt on happiness by asking “what is the source of happiness?”]  
<Christensen, Philosophy>

20. A documentary about this artist inspires Vera to sculpt in Pedro Almodóvar's film *The Skin I Live In*. This artist's Seattle artworks include a fountain whose spouts take turns engulfing nude sculptures of a father and son reaching out to each other, and a trio of eyeball-shaped benches. Robert Mapplethorpe photographed this artist smiling while holding a phallic sculpture. A series of paintings by this artist replaces female body parts with houses, punning on the word "housewife." A sculpture by this artist inspired by the resolve of a woman's work as a tapestry restorer holds thirty-two marble (\*) eggs. Jeff Koons's flower sculpture *Puppy* sits near a sculpture by this artist that revisits a huge caged animal from her *Cells* series as a tribute to her mother. For 10 points, the Guggenheim Bilbao exhibits *Maman*, the most famous of what French sculptor's enormous spiders?

ANSWER: Louise **Bourgeois** [or Louise Joséphine **Bourgeois**]

<Perumalla, Painting & Sculpture>

## Bonuses

1. The first of these objects in the fossil record was discovered by German paleontologist Hermann von Meyer in the Solnhofen limestone. For 10 points each:

[10e] Name these structures found along with the bones of the original *Archaeopteryx* fossil. Modern studies have shown that many dinosaurs were covered in these things instead of scales.

ANSWER: **feathers** [or **down** feathers]

[10h] One difference between *Archaeopteryx* and modern birds and reptiles is its lack of uncinates (“UN-sih-nit”) processes of these structures. The uncinates of these structures in birds join with the scapular muscles, allowing for easier flight.

ANSWER: **ribs** [accept the **ribcage**]

[10m] *Archaeopteryx* dates to this geological period, during which the first birds evolved. Therian mammals and the first lizards evolved during this period.

ANSWER: **Jurassic** Period

<Harvey, Biology>

2. This author declared himself a native of the Republic of Anhedonia in *The Noble Hustle*, in which he battles with Methy Mikes and Big Mitches preparing for the 2011 World Series of Poker Main Event. For 10 points each:

[10m] Name this author who fictionalized the Dozier School for Boys, an abusive school found to have buried students on site, in his 2019 novel *The Nickel Boys*.

ANSWER Colson **Whitehead**

[10h] Whitehead was put into the Main Event by this no-longer extant website, for whom Whitehead also wrote a series of articles about the 2012 London Olympics titled “Hard Times in the Uncanny Valley.” The author of *The Rap Yearbook*, Shea Serrano, wrote for this site before leaving with much of its staff to *The Ringer*.

ANSWER: **Grantland** [accept **grantland.com**; prompt on **ESPN**]

[10e] Whitehead is coached by Helen, a poker player and fiction author with this last name. *American Psycho* is by an author named Bret Easton with this last name.

ANSWER: **Ellis** [or Helen **Ellis**; or Bret Easton **Ellis**]

<Laurie, American Literature>

3. People in this country make a type of magic amulets called agimats or anting-antings, which some believe can bestow superhuman strength or resistance to bullets. For 10 points each:

[10h] Name this modern-day country whose diverse indigenous folk religions are described by the banner term Anitism. This country’s Ifugao ethnic group carves bulul ancestor totems.

ANSWER: **Philippines** [or Republic of the **Philippines**]

[10e] Filipino ancestor icons like the bulul typically protect the harvest of this crop. In Shinto, Inari is the kami of this staple crop.

ANSWER: **rice** [accept *Oryza sativa* or *Oryza*]

[10m] A class of women or members of a third gender known as baklâ (“buck-LAW”) serve in this role in Anitism. The name for these people derives from colonial encounters between Russians and Tungusic peoples in Siberia, many of whom practice a set of religious traditions named for them.

ANSWER: **shamans** [or **shamanism**; accept **babaylan** or **balian** or **katalonan**]

<Harvey, Religion>

4. Among the dozens of instances of nut crimes in this state since the mid-2000s include a trucker's theft of 21 tons of pistachios stashed in a tractor trailer in Tulare County. For 10 points each:

[10e] Name this western state that contains 99 percent of the U.S.'s pistachio orchards and produces 80 percent of the world's almonds, both of which were water sinks during the drought and wildfires it suffered in the 2010s.

ANSWER: California [or CA]

[10h] A large portion of California's nut production is focused in this city's namesake county. Raisin company Sun-Maid was founded near this city, which was named for the ash trees that grow along San Joaquin River.

ANSWER: Fresno [accept Fresno County]

[10m] San Joaquin Valley and this other eastern California valley were involved in several heated "water wars" with the Los Angeles government, as dramatized in the film *Chinatown*. This valley was essentially sucked dry by William Mulholland's aqueducts.

ANSWER: Owens Valley

<Perumalla, Geography>

5. In *Culture and Imperialism*, Edward Said ("sah-EED") cites a passage in which this character thinks that "the world was made for [him and his son] to trade in" as an expression of the "British mercantile ethos." For 10 points each:

[10h] Name this title character, the owner of a large shipping company who desperately wishes he had a son to carry on his business. This character neglects his daughter Florence after his only son dies when he is six years old.

ANSWER: Paul Dombey [or Paul]

[10e] *Dombey and Son* is a book by this author. Said also discusses how the imperial attitude toward Australia is reflected in the portrayal of the convict Abel Magwitch in this author's *Great Expectations*.

ANSWER: Charles Dickens

[10m] In this Dickens novel, the philanthropist Mrs. Jellyby tries to establish a colony in Nigeria for "the general cultivation of the coffee berry—and the natives." The main plot of this novel follows an endless legal case in the Court of Chancery.

ANSWER: Bleak House

<Prather, British Literature>

6. Answer the following about the chemistry of urinal cakes, for 10 points each:

[10e] Urinal cakes reduce bathroom odor by slowly undergoing this process, a phase transition that proceeds directly from a solid to a gas.

ANSWER: sublimation [accept word forms like subliming]

[10m] The most common constituent of modern urinal cakes is a benzene ring with two of these atoms at the *para* positions. An aluminum bonded to three atoms of this element is a common catalyst for Friedel–Crafts alkylation.

ANSWER: chlorine [or chloride; accept aluminum chloride]

[10h] Older urinal cakes were made up of this carcinogenic hydrocarbon derived from coal tar. This molecule is fused to a methylcarbamate in the pesticide carbaryl, though today its main commercial application is in the production of phthalic anhydride.

ANSWER: naphthalene

<Harvey, Chemistry>



7. Answer the following about silent music that predates John Cage's 4'33'' ("four minutes, thirty-three seconds"), for 10 points each:

[10h] The earliest-known silent piece is 1896's "The Silence," published in this country by the pseudonymous composer Samuel. Eight voices shout Claude Lévi-Strauss' *The Raw and the Cooked* in an experimental *Sinfonia* by a composer from this country.

ANSWER: **Italy** (The *Sinfonia* is by Luciano Berio.)

[10m] A satirical 1897 silent piece by Alphonse Allais ("ah-LAY") is titled "[one of these pieces] for the Obsequies of a Deaf Man." One of these pieces titles the *lento* third movement of a Romantic composer's Piano Sonata No. 2 in B-flat minor.

ANSWER: "**Funeral March**" [or *marche funèbre*; accept *marsz żałobny*, *marcia funebre*, or *trauermarsch*; prompt on march or dead march]

[10e] The completely silent "In Futurum" movement from *Fünf Pittoresken* was written by Erwin Schulhoff, a composer from this modern-day country. Earlier, Schulhoff was supported by Antonín Dvořák, another composer from this country.

ANSWER: **Czech** Republic [or **Czechia**; prompt on Austrian Empire, Austria-Hungary, or Austro-Hungarian Empire]

<Harvey, Classical Music & Opera>

8. Johann Nicolaus von Dreyse designed the first of these weapons to be mass produced, which was used to defeat Austria at the Battle of Königgrätz. For 10 points each:

[10m] Name this kind of weapon whose name comes from the firing pin used to puncture a paper cartridge. These weapons were an improvement on percussion locks.

ANSWER: **needle guns** [or **needle rifles**]

[10e] Dreyse and Chassepot needle guns were used by the participants in this war, which ended with the surrender of Napoleon III at the battle of Sedan.

ANSWER: **Franco-Prussian** War

[10h] Needle gun inventor Jean Samuel Pauly also designed the Dolphin, an early machine for this task that he did not finish. Henri Giffard created an early, successful design for a machine for this task.

ANSWER: **flying** [accept airship or dirigible]

<Christensen, European History>

9. One legendary creature in the folklore of these people is the hugag, whose unfortunate trait of not having any joints means it cannot lie down. For 10 points each:

[10h] Name this type of person. Many "fearsome critters" are from the oral tradition of these people, including the squonk, a creature that weeps continuously because it hates its ugly skin.

ANSWER: **loggers** [or **lumberjacks**; accept clear equivalents]

[10e] Many oral traditions in logger camps also include this gigantic lumberjack whose companion was Babe the Blue Ox.

ANSWER: Paul **Bunyan**

[10m] Another fearsome critter in American fakelore is this creature that only breeds during lightning flashes. There have been several attempts in Wyoming to make this the state's official mythological creature.

ANSWER: **jackalope**

<Tsai, Mythology>

10. A system of “dyarchy” was established in this colony in 1919, which delegated responsibilities to a Secretary of State and Governor General. For 10 points each:

[10m] Name this colony where local governments were established based on the Montagu–Chelmsford report. An activist critical of those reforms later started a movement for its colonizer to “Quit” this colony.

ANSWER: British India [or British Raj]

[10e] Protests led by Mohandas Gandhi over British rule in India led to a massacre in this region’s city of Amritsar. Upon independence, this region was split into a Muslim half in Pakistan and Sikh and Hindu half in India.

ANSWER: Punjab

[10h] In 1931, Gandhi’s Civil Disobedience Movement led to a pact with the Raj made with this person, then Viceroy of India, in a move heavily criticized by Winston Churchill. This politician vouched for peace with the Axis in 1940 as foreign secretary.

ANSWER: Lord Irwin [or Edward Wood, First Earl of Halifax; accept The Viscount Halifax]

<Christensen, Other History (Mixed)>

11. Henry Lawson included stories like “The Drover’s Wife” and “On the Edge of a Plain” in an 1896 collection titled for one of these objects. For 10 points each:

[10h] Name these objects. In a poem, a “jolly swagman” waits for one of these objects to boil while camping “under the shade of a coolibah tree.” Please give the specific term.

ANSWER: a billy [or a billycan; accept *While the Billy Boils*; prompt on synonyms that don’t say “billy” like can or cooking pot]

[10m] In the slang of this place, a billy is a metal can used as a cooking pot. Poets like Henry Lawson and Banjo Paterson used the language of this place in ballads about it like “Freedom on the Wallaby” and “Clancy of the Overflow.”

ANSWER: the Australian bush [accept bush ballad; prompt on Australia; prompt on the Outback by asking “what is the place called in the context of this kind of literature?”]

[10e] In “Waltzing Matilda,” the swagman jumps into a body of water called by this word after a “squatter” chases him for stealing a “jumbuck.” This Australian word for oxbow lake probably derives from Wiradjuri.

ANSWER: billabong

<French, World Literature>

12. Answer the following about the works of Palestinian artist Mona Hatoum, for 10 points each:

[10e] A person with this relationship to Hatoum is shown showering in Hatoum’s installation *Measures of Distance*. A person with this relationship to the artist is depicted in James Whistler’s *Arrangement in Grey and Black No. 1*.

ANSWER: mothers [accept Whistler’s Mother or *Portrait of Artist’s Mother*; accept equivalents like mom; prompt on parents]

[10m] Hatoum’s *Remains I* is one of these objects partially made from wire mesh. A Finnish designer created many of these objects for Knoll, including one based on the womb, and another likened to a flower for its stem-like design.

ANSWER: chairs [accept womb chair or tulip chair]

[10h] Works by Hatoum appear in an NYU Abu Dhabi exhibition based on this 1972 book. This book’s textless second chapter juxtaposes sexualized images used in advertising with nude portraits by various Great Masters.

ANSWER: Ways of Seeing (by John Berger)

<Harvey, Painting & Sculpture>

13. This city contains single houses: long, narrow houses which are one room wide facing the street and lined by porches, or *piazas*, which run along the long side of the house perpendicular to the street. For 10 points each:  
[10m] Name this city, which was besieged by Blackbeard and allied pirates and where “Gentleman Pirate” Stede Bonnet was hanged. Benjamin Lincoln surrendered this city to Henry Clinton during the Revolutionary War.

ANSWER: **Charleston**, South Carolina

[10h] Historians like Richard Stockton link Charleston’s single houses to this modern-day country where Stede Bonnet was born. The Goose Creek Men were early settlers of the Carolina Colony from this country.

ANSWER: **Barbados**

[10e] Because they did not share walls, single houses proliferated after a 1740 disaster of this type in Charleston. One of these disasters afflicted Chicago in 1876.

ANSWER: **fires**

<Laurie, American History>

14. This European architect was an early incorporator of the whiplash motif into building design, placing the pattern on a floor with matching orange wallpaper next to a winding open staircase underneath a skylight. For 10 points each:

[10h] Name this architect whose four 1890s townhouses, like the Hôtel Tassel, exemplify the “totality” principle of Gesamtkunstwerk (“GAY-zahm’t-KOONST-verk”). Jef Lambeaux’s (“lom-BOH’s”) *Human Passions* relief adorns a Greek temple-like pavilion by this architect.

ANSWER: Victor **Horta** (“OHR-tah”) [or Victor f **Horta**; or Victor, Baron **Horta**]

[10m] Horta’s townhouses are still located in this city, but his House of the People fell victim to this city’s namesake term for replacement of historic buildings with high-rises. A Royal Palace in this city is just two kilometers from a fountain that contains the most famous example of a *puer mingens* (“POO-air MIN-gin-ess”).

ANSWER: **Brussels** [or **Bruxelles**; prompt on **Brusselization**, **Brusselisation**, **bruxellisation**, or **verbrusseling**] (The *puer mingens* is the *Manneken Pis* statue of a boy urinating.)

[10e] Horta’s Hôtel Tassel is regarded as the first building to embody this artistic style. Hector Guimard’s (“ghee-MAHR’s”) Paris Metro entrances popularized this style, whose French name means “new art.”

ANSWER: **Art Nouveau**

<Perumalla, Other Fine Arts (Architecture)>

15. This book argues that debates over environmental issues like the ozone layer and climate change are “hybrid,” as they bridge culture, technology, and nature. For 10 points each:

[10h] Name this book that argues for a “Parliament of Things” in which natural and social phenomena are studied together, which contemporary culture tries to keep separate.

ANSWER: **We Have Never Been Modern** [or **Nous n'avons jamais été modernes: Essai d'anthropologie symétrique**]

[10m] *We Have Never Been Modern* was written by this thinker, who also wrote *Laboratory Life* and contributed to the development of actor-network theory.

ANSWER: Bruno **Latour**

[10e] Latour is an anthropologist who studies this discipline. Thomas Kuhn studied the revolutions of this discipline that are shaped by paradigm shifts.

ANSWER: **science** [accept **science** and technology; accept **STS**]

<Christensen, Social Science (Anthropology)>

16. The Chūō Shinkansen project utilized this technology to achieve the world record for the fastest manned train on its test track. For 10 points each:

[10e] Name this technology used by the Shanghai transrapid airport line. Some systems for this technology use a Halbach array to generate a repulsion, allowing the train to move without being slowed down by friction.

ANSWER: maglev [or magnetic levitation]

[10h] At slow speed, EDS Maglev trains can't levitate, so they need the support provided by this device. This device attaches the wheelsets to the bottom of a train, and it turns to help the train run along a curved piece of track.

ANSWER: bogie [or bogy; or bogey; accept wheel truck]

[10m] A dynamic magnetic field is necessary for maglev because this theorem states that static magnets can not be in a stable equilibrium in any configuration. Aside from magnets, this theorem also applies to arrangements of point charges.

ANSWER: Earnshaw's theorem

<Law, Other Science>

17. A racist myth about these people claims a merchant named Wu Feng sacrificed himself to a beheading to persuade these people to stop head-hunting. For 10 points each:

[10m] Give this broad class of people including the Bunun, Puyuma, and Atayal, who were taught baseball by the Japanese. When Koxinga came to their country, some of these people fought with him against the Dutch.

ANSWER: Taiwanese aboriginals [or Taiwanese indigenous peoples; prompt on Taiwanese people]

[10h] An aboriginal baseball team's victory over a Japanese team helped spur the Taiwanese government's pursuit of this goal, which was achieved by 1971's Tainan Juren team. Students were funneled to three schools — Huaxing, RSEA, and Meihi — to accomplish this goal.

ANSWER: winning the Little League World Series [or winning the LLWS]

[10e] Winning the Little League World Series was made a government goal under this longtime Taiwanese leader.

ANSWER: Chiang Kai-Shek [or Jiang Jieshi]

<Laurie, World History>

18. For a one-dimensional motion, the two axes of a phase space graph correspond to these two variables. For 10 points each:

[10m] Identify these variables, the two input variables to the Hamiltonian in a system if energy is conserved. The quantum operator for one of these variables is negative  $i\hbar$  ("i-h-bar") times the derivative operator with respect to the other variable.

ANSWER: position AND linear momentum [accept p and x; or p and q; reject "angular momentum" or "L" in place of "p"]

[10h] This operation maps position and momentum to other generalized coordinates, while keeping Hamilton's equations valid. The Poisson bracket of the two new coordinates in this operation is equal to the Kronecker delta.

ANSWER: canonical transformation

[10e] Linear momentum is equal to mass multiplied by the derivative of position with respect to this quantity.

Derivative with respect to this quantity is often denoted by a dot on top of a variable.

ANSWER: time

<Law, Physics>

19. The doctrine of this quality is defined by the idea that “the difference between God and creatures, at least with regard to God’s... pure perfections is ultimately one of degree.” For 10 points each:

[10h] Name this quality one thinker assigned to God, which results in God having any quality assignable to a human but infinitely.

ANSWER: univocity of being

[10m] The univocity of being was imagined by this medieval philosopher. This thinker also coined a Latin term for “thisness”, which is the defining essence of what makes a particular thing unique.

ANSWER: John Duns Scotus

[10e] Scotus put forth a metaphysical argument based on efficient causes for this idea, in contrast to Saint Anselm’s ontological argument for it that describes it “a being than which no greater can be conceived.”

ANSWER: existence of God

<Christensen, Philosophy>

20. Answer the following about the influence of the 17th-century Italian poet Giambattista Marino, for 10 points each:

[10m] Marino was a key figure in the development of this style of heavily ornamented and formally complex poetry. Marino’s Spanish admirers Francisco de Quevedo and Luis de Góngora also wrote in this pan-European style.

ANSWER: Baroque poetry

[10h] Much of Marino’s reputation rests on his once widely-read epic poem titled for this mythological figure. A “lament” for this figure, who suffers a thigh wound, is the only complete surviving poem of the Greek lyric poet Bion.

ANSWER: Adonis [or *L’Adone*; accept “Lament for Adonis”]

[10e] Marino was patronized by Marie, a member of this powerful Florentine family. Niccolò Machiavelli wrote *The Prince* for Lorenzo, another member of this family.

ANSWER: de’ Medici family [or Marie de’ Medici; Lorenzo de’ Medici]

<Harvey, European Literature>