

Penn Bowl 2022: Fla Pornanlo
Packet 14 (Finals 2)

Editors: Taylor Harvey, Erik Christensen, Justine French, Gerhardt Hinkle, Emmett Laurie, Leo Law, Tracy Mirkin, Ani Perumalla, Darren Petrosino, and Jeremy Tsai

Writers: Mateo Javier Acosta, Talia Coopersmith, Graham Cope, Danny Han, Jeya Iyadurai, Alex Moon, Hayden Prather, Sophie Torres, and Qingyu Zhang

Tossups

1. The fact that over two-thirds of the fossils of this animal are male suggests that, like its modern relatives, adult males were solitary while adult females and children formed large family groups. The Berelekh site is the most significant of the fossil accumulations of this animal; such accumulations were formed by many individuals falling off of riverside ledges and later being buried by sediment and are this animal's namesake (*) graveyards. Cuvier's study of this animal's fossils led him to propose the concept of extinction. This animal's namesake steppe was the most widespread biome during the Last Glacial Maximum. There have been many proposals to clone this prehistoric animal because of the large amount of genetic material from preserved remains in Siberian permafrost. For 10 points, name this Pleistocene elephant relative that was covered with thick hair.

ANSWER: wooly mammoth [or Mammuthus primigenius; accept Columbian mammoth or Mammuthus columbi; accept mammoth graveyards; accept mammoth steppe; reject "mastodon"]

<Hinkle, Biology>

2. In this novel, a man gestures to some lines of chalk and remarks, "the sun will shine on those who stand before it shines on those who kneel under them," to explain why he will not repay his debt. Later in this novel, a character remarks, "living fire begets cold, impotent ash" when explaining to himself how his own son could be so "degenerate and effeminate." Another character in this novel contracts the abominable "swelling" sickness and so is sent, along with his flute, to die in the (*) Evil Forest. In this novel, a man adopts the name Isaac after converting to Christianity; that man's father is ashamed that his own father is weak and lazy, while he himself is a renowned wrestler who owns many yams. For 10 points, Okonkwo sees normal order in Umuofia collapse in what novel by Chinua Achebe?

ANSWER: Things Fall Apart

<French, World Literature>

3. Verse 15 of Surah at-Taghabun states that though wealth and these people are "only a trial," God alone is a "great reward." Verse 8 of Surah al-Insan instructs that it is always required to provide food for the poor, captives, and these people. In some Islamic traditions, dates or honey are rubbed on the gums of these people shortly after the Shahada is whispered in their right ear. In an effort to help one of these people, (*) Hajar ran back and forth between the hills of Safa and Marwa. 'Aqīqah is a non-obligatory animal sacrifice done on behalf of these people, whose hair is cut and measured to determine the weight of silver for a donation. For 10 points, name this sort of person who, in Islam, are sometimes given a name one week after birth.

ANSWER: babies [or infants; accept children or kids; accept orphans]

<Harvey, Religion>

4. This country destroyed many Batwa pygmies' homes in a campaign against thatched roofs. This country currently chairs the Commonwealth of Nations; it held the 2022 summit at which the Commonwealth welcomed the first members since this country joined in 2009. This country denies supporting an insurgency in a neighboring country, M23. Like Sierra Leone, this country requires citizens to (*) clean on the last Saturday of each month. In 2022, the U.K. signed a deal with this country to deport asylum seekers to it. Former president Pasteur Bizimungu was imprisoned in this country, the so-called "Singapore of Africa," by a politician from the RPF who has led it since 2000. For 10 points, name this country whose president Paul Kagame created "reconciliation villages" after a 1994 genocide.

ANSWER: Rwanda

<Laurie, Current Events>

5. This poem was first published under the pseudonym "Caviare," referencing Hamlet's remark that one play was "caviare to the general." That version of this poem calls its central character a "wretched wight" and uses the phrase "sideways she would lean" where its more famous version says, "sidelong she would bend." This poem, which is titled after a poem on courtly love by Alain Chartier, describes a woman with "wild wild eyes" who "looked at me as she did love, / And made sweet moan." The poet's (*) tuberculosis may have inspired the "pale kings and princes" in this poem who visit the speaker in a dream and warn him that the title "faery's child" has him "in thrall." For 10 points, a knight is seduced and imprisoned by a faery in what John Keats ballad with a French title?

ANSWER: "La Belle Dame sans Merci"

<French, British Literature>

6. A membrane made from this metal alloyed with copper or silver is used in a method for hydrogen purification from syngas. At room temperature, this metal will absorb about 900 times its volume in hydrogen, leading it to sometimes be called a "hydrogen sponge." A stannine can be joined to a pseudohalogen using a catalyst containing this metal in a reaction named for (*) Stille ("stil-uh"). An ethylene is oxidized to an acetaldehyde via a copper(II) chloride catalyst and another containing this metal in the Wacker process. After nickel, this is the lightest group 10 metal used as an oxidizing catalyst in catalytic converters. The 2010 Nobel in Chemistry was won for reactions catalyzed by this metal and developed by Negishi, Suzuki, and Heck. For 10 points, name this expensive platinum-group metal that catalyzes many cross-coupling reactions.

ANSWER: palladium [or Pd]

<Harvey, Chemistry>

7. Resentment of a ruler of this name in one city led to rebellions led by two men named Crescentius. A ruler of this name succeeded in having his cousin Bruno become elected as Pope Gregory V. A year before his early death, a ruler of this name gifted a replica of the Holy Lance and the title of friend to a duke in Gniezno ("g'NYEZ-noh"). A ruler with this name sought to maintain the concept of *translatio* by marrying his son of the same name to the Byzantine princess (*) Theophanu. The king of East Francia, Henry the Fowler, fathered a ruler with this name who married Adelaide of Italy. That ruler of this name, known as the Great, confirmed the Donation of Pepin after Pope John XII crowned him in 962. For 10 points, give this name of the first three German Holy Roman Emperors.

ANSWER: Otto [accept Otto the Great]

<Christensen, European History>

8. Seeing himself as the last of one tradition, this composer said “I am the last mountain of a large mountain range. After me come the flatlands,” while serving in a post in which he advocated for stronger copyright protections. Two repetitions of C-sharp - E - D in the brass open a piece by this composer that was the subject of a payment dispute over patriotic lyrics written by Robert Lubahn. This composer captured his disillusionment by quoting the funeral march from the *Eroica* symphony in a piece for 23 solo strings. This composer wrote his *Olympic Hymn* for the (*) 1936 Summer Olympics. In part to protect his Jewish daughter-in-law Alice, this composer served as president of the *Reichsmusikkammer*. For 10 points, name this German composer of *Metamorphosen* and *Four Last Songs* who depicted a sunrise in his tone poem *Thus Spoke Zarathustra*.

ANSWER: Richard Strauss [or Richard Georg Strauss; prompt on Strauss]

<Harvey, Classical Music & Opera>

9. A deity of these objects was the only one of his seven brothers to not be fooled by an impostor of his mother, due to her not sharing an umbrella; that is the hero Nokdisaengin, in a myth from Jeju Island. As told in *Journey to the West*, Qin Shubao and Yuchi Gong are two gods of these objects who tried to protect Emperor Taizong from the spirit of a dead dragon king. These objects are protected by Heng and Ha, the Chinese equivalents of Nio, who are liminal figures in Mahayana Buddhism. Firecrackers and (*) decorations on these objects scared away the *nian* monster. Upside-down characters and festive couplets on red paper decorate these objects during Chinese New Year. Pairs of statues that flank these locations typically include a female playing with a cub. For 10 points, stone guardian lions typically are next to what locations?

ANSWER: doors [or gates, thresholds, entrances, and other similar answers; accept munjeon, munshin, or menshen]

<Tsai, Mythology>

10. These people may have easily adopted Christianity because they revered a deity who lived underground for three years after explaining the afterlife at a banquet. The ferocity of a weapon used by these people provoked the Roman army to adopt the *manica* armguard and reinforce their helmets with an iron strap. Like the Gauls, these people name an advanced form of double walls without mortar called (*) *murus*. The kingdom of these people, who worshiped Zalmoxis and wielded the curved *falx* polearm, was first united by Burebista. A monument in a Roman forum depicts the fall of these people’s city of Sarmizegetusa under their last king Decabalus. For 10 points, the defeat of what ancient inhabitants of modern day Romania is depicted on Trajan’s Column?

ANSWER: Dacians [accept Getae; prompt on Thracians by asking “what is the specific related group?”]

<Christensen, Other History (Ancient)>

11. In a short poem from *Leaves of Grass*, one of these objects is told “long yet your road, and lined with bloody death” and is referred to as “thick-sprinkled.” In a different poem, a woman holding one of these objects causes a “nobler nature” to stir within a man who threatens that anyone who touches her “dies like a dog.” The title character parenthetically called a “corpse and wanting any rag” vulgarly tells his superior that he refuses to kiss one of these objects in (e e cummings’ “i sing of Olaf glad and big.” A ninety-year-old woman tells a man to spare one of these objects even if he must “Shoot...this old gray head” in John Greenleaf Whittier’s “Barbara Freitchie.” A poem set to the tune of “To Anacreon in Heaven” describes this object’s features as “so gallantly streaming.” For 10 points, what object titles a song adapted from a poem by Francis Scott Key?

ANSWER: American flags [or buntings; accept “Thick-Sprinkled Bunting”; accept the Union flag; accept “The Star-Spangled Banner”; accept synonyms like the stars and stripes]

<Petrosino, American Literature>

12. This man swims in a body of water modeled after Lake Geneva in a surviving panel of a lost altarpiece named for him by Konrad Witz. A grid of metal bars is featured at the center of a semicircular fresco named

for this man, painted by Raphael in the Apostolic Palace. This person kneels in the foreground of a fresco whose background depicts two arches modeled on the Arch of Constantine, which flank a central octagonal building. This man is depicted in the center among a crowd and on the right speaking to a (*) tax collector in a painting found in the Brancacci Chapel. This man is handed the title objects by Christ in a Sistine Chapel fresco painted by Perugino. Masaccio's *The Tribute Money* depicts a scene in which this man retrieves a coin from the mouth of a fish. For 10 points, identify this saint who names a large basilica in the Vatican City.

ANSWER: Saint Peter [or San Pietro]

<French, Painting & Sculpture>

13. Two members of this organization that flunked a class were nicknamed “Dumb and Dumber” by their instructor, Rick Garza. Peter Bergen wrote a biography of this organization’s former leader, who named an intelligence unit whose head, Michael Scheuer (“SHOY-er”), resigned after writing *Imperial Hubris*. Daniel Pearl was murdered while investigating a member of this organization, Richard Reid. Alec Station was tasked with monitoring this organization, which held a (*) 2000 summit in a Kuala Lumpur hotel room. Ali Soufan investigated the bombing of the *USS Cole* that was perpetrated by this organization. In 2022, this organization’s leader, Ayman al-Zawahiri, was killed. This organization perpetrated an event that interrupted a President reading “The Pet Goat” to a class of second-graders. For 10 points, Seal Team 6 killed what organization’s leader, Osama Bin Laden?

ANSWER: Al-Qaeda

<Laurie, American History>

14. A shot from a film adaptation of this work depicts a man opening a window only to be engulfed by a flood of leaves. After two men encounter a glowing figure turning a spinning wheel, a three-minute montage in an adaptation of this work depicts their being lost on horseback in thick fog. In an adaptation of this work, Kathryn Hunter plays a woman who contorts her limbs in a bizarre fashion before donning a black hood in front of a puddle that reflects her twice at once. German Expressionism inspired many sets of a (*) 2021 monochrome adaptation of this work whose protagonist sees a boy’s face in a pool that spontaneously fills a stone room. Lord Washizu is horrified by the sight of charging trees in Akira Kurosawa’s *Throne of Blood*, which adapts this Western play. For 10 points, Joel Coen’s version of what play stars Denzel Washington as the title Scot?

ANSWER: Macbeth [or *The Tragedy of Macbeth*; prompt on *The Scottish Play* or *The Bard’s Play*]

<Acosta, Other Fine Arts (Film)>

15. An anthropologist from this country analyzed the importance of families in the Solomon Islands passing down *te paito* homes on the island of Tikopia. A hunter-gatherer group in this country often depicts albatrosses on *rakau* tree carvings. Ceremonies in this country are traditionally begun with a *wero* challenge that often frightens visitors. This is the largest country where meeting places called *marae* are built, the site of ceremonies that end with the touching of noses called a (*) *hongi*. *Kapa* song and dance groups from this country stick their tongues out and open their eyes wide in a dance traditionally performed before battle. A group in this country welcomes important guests with a dance that can involve the slapping of legs and the beating of the chest called the *haka*. For 10 points, name this country home to the Polynesian groups of the Moriori and the Maori.

ANSWER: New Zealand [or Aotearoa]

<Christensen, Social Science (Anthropology)>

16. The displacement field is split into two independent components in a hybrid method of doing this task named for Trefftz. The order of the central objects of this task can be reduced by breaking it into irreducible

components via the Loewy decomposition. If the object central to this task is in self-adjoint form, then this task can be reduced to problems in Sturm–Liouville theory. Robin, Neumann, and Dirichlet name the different kinds of (*) boundary value problems for this task, while the Picard–Lindelöf theorem gives the conditions for the existence and uniqueness of this task. The ratio of the Wronskians is used in the variation of parameters method for this task. For 10 points, identify this task of finding expressions that satisfy an equation that involve derivatives of an unknown function.

ANSWER: solving differential equations [accept equivalents, such as finding solutions of differential equations; accept more specific answers such as those that involves “partial differential equations” or “ordinary differential equations” or named differential equations such as “Euler’s equation”; accept answers with “diff eq,” “ODE,” “PDE” in place of “differential equations”]

<Law, Other Science>

17. Enormous supplies of this material were lost by the Ming dynasty after the destruction of the Wanggongchang facility. In a book about this material, Tonio Andrade (“on-DRAH-dee”) records the ban of residents of Hebei and Shanxi from selling it to foreigners. A poisonous variety of this material is one of many uses outlined in a manual written by Jiao Yu. After the proper method of producing this material was recorded in the (*) *Wujing Zongyao*, published during the Song dynasty, people would attach bamboo and this material to lances. After its discovery by alchemists seeking an elixir to extend human life, this material began being used along with another of the Great Inventions, paper, during festivals. For 10 points, name this material traditionally made with saltpeter used in Chinese celebrations.

ANSWER: gunpowder [or Huǒyào]

<Christensen, World History>

18. Suspended-particle devices use these systems that change their internal orientation when a voltage is applied, which is the technology behind Smart glass. These systems can be visualized in real time using the Sarfus Technique. The change of polarization of these systems is measured in ellipsometry. A PVD method called Sputter deposition produces these systems. (*) Dichroic filters use these systems to selectively let lights of different colors pass through. Amorphous silicon is used as one of these systems in the common designs of second-generation solar cells. The difference between the refractive indices of the two boundaries of these systems causes the bright color fringes seen in soap bubbles. The thickness of these systems is close to the coherence length of light. For 10 points, identify these systems that have applications such as anti-reflective and anti-scratch coatings.

ANSWER: thin films [accept multilayers or monolayers; prompt on films; prompt on optical coating before mentioned]

<Law, Physics>

19. These are the second things in the name of a paper that uses two chairs in a living room to argue against asking a question involving them. According to one thinker, groups of these things and their relations to each other must be evaluated as they appear based on the principle of radical interpretation. A paper titled for these things contrasts constatives with gift giving a watch, getting married, and smashing a bottle on the (*) HMS Queen Elizabeth. The paper “Knowing One’s Own Mind” imagines being struck by lightning to argue these things would no longer be understood by the Swamp Man who has replaced Donald Davidson. A paper about these things describes performative utterances with no truth value. For 10 points, J.L. Austin wrote a paper titled “How to Do Things” with what linguistic units?

ANSWER: words [accept names; prompt on statements or utterances and asks what these are constructed with]

<Christensen, Philosophy>

20. An author with this surname wrote a novel in which the Galician religious scholar Nahum leaves his fourteen-year-old wife to become the wandering holy fool Yoshe Kalb. Another novel by an author with this surname follows the rise of the Łódź (“wooch”) industrialist Max, who ruthlessly tries to one-up his fraternal

twin Jacob. An author with this surname wrote a novel about a dybbuk possession of a follower of Sabbatai Zevi in the title war-torn Polish town. The (*) Yiddish-language author of *The Brothers Ashkenazi*, Israel Joshua, shared this surname with his Nobel-winning brother, who wrote a story about a cuckolded baker who urinates in his bread dough. For 10 points, *Satan in Goray* and “Gimpel the Fool” were written by an author with what surname and the forenames Isaac Bashevis?

ANSWER: **Singer** [or Israel Joshua **Singer**; or Isaac Bashevis **Singer**]

<Harvey, European Literature>

Bonuses

1. After visiting Bohemia during the time of Jan Hus, two priests from this country created the Hussite Bible, the oldest translation in its native language. For 10 points each:

[10h] Name this country whose “Royal” portion remained mostly Catholic while the area under Ottoman rule became overwhelmingly Protestant due to the empire’s religious tolerance.

ANSWER: Hungary [or Magyarország]

[10e] Protestants in Hungary were predominantly followers of this French theologian, who founded the Reformed movement and outlined his views on predestination in *Institutes of the Christian Religion*.

ANSWER: John Calvin [or Jean Calvin]

[10m] The third part of the Hungarian Kingdom before the battle of Mohács (“MO-hotch”) became this state, a vassal of the Ottoman Empire. The Edict of Torda provided religious freedom in this state to its Protestant groups, Catholics, and Orthodox Christians.

ANSWER: Principality of Transylvania [reject “Kingdom of Transylvania”]

<Christensen, European History>

2. One of these animals was decorated with a gilded eye in a fowling scene found in the tomb of Nebamun. For 10 points each:

[10e] Name this popular animal in Ancient Egypt, who are often kept as pets to protect grain storage from vermin.

ANSWER: cat [prompt on felines; reject “lions”]

[10m] The most well-known cat goddess in the Egyptian pantheon is likely this goddess, who is sometimes contrasted with the warrior aspect of the lioness deity Sekhmet.

ANSWER: Bast [or Bastet]

[10h] Bast and Sekhmet are both sometimes considered to be the mother of this god, a son of Ptah. This god, sometimes conflated with his brother Maahes, is symbolized with a blue Egyptian lotus.

ANSWER: Nefertem [or Nefertum, or Nefer-temu]

<Tsai, Mythology>

3. Answer the following questions about Emilie Mayer, a German composer known as the “female Beethoven,” for 10 points each:

[10e] Mayer composed this many symphonies, more than any other female composer of her era. This is one less than the number of symphonies completed by Beethoven.

ANSWER: eight

[10h] The finale of Mayer’s sixth symphony includes a notable solo for this instrument, marking one of its first uses in orchestral music. This instrument plays two quick pairs of notes to begin the “Allegretto vivace” third movement of Liszt’s first piano concerto.

ANSWER: triangle

[10m] In 2000, the Erato Quartet Basel recorded the string quartets of Mayer, Maddalena Laura Sirmen, and this composer, whose *Easter Sonata* was once attributed to her brother. She also wrote a D minor piano trio and the piano collection *Das Jahr*.

ANSWER: Fanny Mendelssohn [or Fanny Hensel; prompt on Mendelssohn; prompt on Fanny]

<Harvey, Classical Music & Opera>

4. A 2022 PNAS study by Michael McFarland et al. found that over 170 million Americans were exposed to dangerous levels of this metal in childhood, resulting in a collective loss of 824 million IQ points. For 10 points each:

[10e] Name this neurotoxic heavy metal once widely used in paint and pipes and as an anti-knocking agent in gasoline.

ANSWER: **lead** [or **Pb**]

[10m] Lead exposure has been shown to lead to anemia by preventing the incorporation of iron into one of these molecules known as PPIX. One of these heterocyclic molecules made up of pyrrole subunits acts as a tetradentate ligand in heme.

ANSWER: **porphyrin** ring [accept **protoporphyrin IX**]

[10h] Acute lead poisoning can be treated with this drug, a chelating agent containing thiol and carboxylic acid groups. This drug is more commonly prescribed to treat Wilson's disease.

ANSWER: **penicillamine** [accept **Cuprimine**]

<Harvey, Chemistry>

5. This poet advocated for the principle, "awakening to the high, returning to the low," meaning that poets should seek spiritual cultivation and then write about everyday life. For 10 points each:

[10m] Name this poet whose other principles include "following the Creative" and "object and self as one." This poet exemplified those principles in a poem whose last line contains an onomatopoeia for water splashing.

ANSWER: Matsuo **Bashō** (The poem is his frog haiku.)

[10h] In contrast to Bashō's "returning to the low," this poet argued that haikai poets should achieve a "departure from the common" by reading Chinese poetry. This poet is considered one of the three great haiku masters alongside Issa and Bashō.

ANSWER: Yosa **Buson**

[10e] Bashō's poetics were largely inspired by Daoism and this tradition. Buson remarked that his idea of "departure from the common" was difficult to understand, like the koans used in this religious tradition.

ANSWER: **Zen** Buddhism [prompt on **Buddhism**]

<French, World Literature>

6. Full-length examples of these structures have homing endonuclease domains between C- and N-terminal splicing regions. For 10 points each:

[10h] Name these polypeptide sequences that can splice themselves out of large host proteins. These units are called "split" if they are encoded by more than one gene.

ANSWER: **inteins** [accept split **inteins**; accept **protein introns**; reject "introns"]

[10e] Inteinase, the dnaE host protein, may play a role in the basal metabolism of these organisms. Marine examples of this phylum of photosynthetic bacteria began to oxygenate the Earth's atmosphere 2.5 billion years ago.

ANSWER: **cyanobacteria** [accept **Cyanophyta**; accept **blue-green algae**]

[10m] Inteins were first discovered in 1990 in this model organism, which can sexually reproduce using a shmoo. This model organism was the first eukaryote to have its genome sequenced.

ANSWER: *Saccharomyces* **cerevisiae** [accept **brewer's yeast** or **baking yeast**; prompt on **yeasts**]

<Harvey, Biology>

7. This ruler and Devlet II Giray successfully worked to undermine Baltacı Mehmet Pasha for his soft settlement with Peter the Great after the Pruth River Campaign, which was triggered by the Ottoman refusal to turn this ruler over. For 10 points each:

[10m] Name this ruler who holed up for four years in a fortress in Bendery before the Ottomans grew tired of his habit of running up large debts, shelled his fortress, and kicked him out.

ANSWER: **Charles XII** [or **Karl XII**; or **Carolus Rex**; prompt on **Charles** or **Karl**]

[10h] Charles XII was ousted from Ottoman territory by Ahmed III, who was overthrown during the Patrona Halil rebellion. Halil's followers were largely people of this ethnicity, as was a Grand Vizier whose connection to Turhan Hatice helped his rise under Mehmed IV.

ANSWER: **Albanians**

[10e] Patrona Halil's rebellion was largely perpetrated by these elite slave-soldiers of the Ottoman Empire often composed of kidnapped Christian children.

ANSWER: **Janissaries** [or **Janissary** corps]

<Laurie, World History>

8. A collection by this author recounts Biblical chapters such as Isaiah 63 and 1 Samuel 17, the latter of which this author turned into a long narrative poem about David and Goliath. For 10 points each:

[10m] Name this author who is addressed as a "pious youth" in a Jupiter Hammon poem whose 21 quatrains all end with Bible verses. In that poem, Hammon echoes this author to say that "God's tender mercy brought thee here."

ANSWER: Phillis **Wheatley** [accept "An Address to Phillis **Wheatley**"] (The second poem in the lead-in is "Goliath of Gath.")

[10e] A teenage Phillis Wheatley exalted, "Twas mercy that brought me from my Pagan land" in a poem titled "On Being Brought from [this place] to America."

ANSWER: **Africa** [accept "On Being Brought from **Africa** to America"]

[10h] A young chimney sweep in London asks Wheatley if she's also a chimney sweep in a poem by this author framed as Wheatley's 1773 letter to Obour ("OH-bore") Tanner. A poem by this author in which the "corpse of mercy" rots with "thy father" repeatedly invokes a "voyage through death."

ANSWER: Robert **Hayden** (The poem is "Middle Passage.")

<Petrosino, American Literature>

9. The oldest known notation of music is a series of songs written in this language, found in the city of Ugarit. For 10 points each:

[10h] Name this language spoken in the kingdom of Mittani. The speakers of this language likely shared ancestry with Urartu in modern day Armenia.

ANSWER: **Hurrian**

[10m] Hurrian-speaking states were largely wiped out during this event. Though this event is still the subject of numerous debates, it was likely caused in part by the mysterious invasions of the Sea Peoples.

ANSWER: Late **Bronze Age Collapse**

[10e] The Bronze Age Collapse didn't end this period of Egyptian history due to successful defenses mounted against the Sea Peoples. Ramses the Great ruled during this period, the third era traditionally called a kingdom.

ANSWER: **New** Kingdom

<Christensen, Other History (Ancient)>

10. Father Patrick Cheng, who wrote the queer theology book *Radical Love*, is a thinker from this denomination. For 10 points each:

[10m] Name this American Christian denomination that, since 2015, has blessed same-sex marriages. Bishop Michael Curry leads this congregation, part of the Anglican Communion.

ANSWER: Episcopal Church [accept Episcopalian Church]

[10h] Cheng's study of queer Anglicanism has made note that this theologian wished to be buried in his friend Ambrose St. John's grave. This leader of the Oxford Movement published the controversial Tract 90.

ANSWER: John Henry Newman

[10e] Gay Episcopal priest Malcolm Boyd wrote about finding Jesus in a gay bar in a bestselling collection of these texts called *Are You Running with Me, Jesus?* The Episcopal Church also used a *Book of Common* examples of these texts.

ANSWER: prayers [accept *Book of Common* Prayer]

<Harvey, Religion>

11. Answer the following about multidisciplinary American artist Bruce Nauman, for 10 points each:

[10e] Nauman spits a stream of water with hands aloft in a piece called *Self-Portrait as this type of object*. This type of object titles a Marcel Duchamp piece comprising a urinal signed "R. Mutt."

ANSWER: fountain [accept Self-Portrait as a Fountain]

[10m] As part of the series *Seven Easy Pieces*, this artist recreated a Nauman work in which the artist's body presses against a wall. Onlookers applauded former collaborator Ulay surprising this artist during a silent 2010 piece.

ANSWER: Marina Abramović ("ah-BRAH-moh-vich")

[10h] A Nauman neon sign arranges the slogan "The true artist helps the world by revealing mystic truths" in this form. The artist of a work titled for this configuration remarked "et in Utah ego" upon viewing it.

ANSWER: spiral [accept Spiral Jetty (by Robert Smithson); accept coil, swirl, or helix]

<Perumalla, Other Fine Arts (Mixed Visual Arts)>

12. This singer and his wife Morgane sing "I can be your lucky penny / You can be my four leaf clover" on the title track of his 2021 album *Starting Over*. For 10 points each:

[10m] Name this singer whose breakout single, his recording of "Tennessee Whiskey," appears on his 2015 debut album *Traveller*.

ANSWER: Chris Stapleton

[10h] Stapleton and Willie Nelson sing "My Heroes Have Always Been Cowboys" on *Outlaw*, a tribute album to this outlaw country pioneer. Nelson, Tompall Glaser, Jenni Colter, and this musician recorded the first platinum country album, *Wanted! The Outlaws*.

ANSWER: Waylon Jennings

[10e] Stapleton performed "Tennessee Whiskey" at the CMAs with this musician. Songs by this former NSYNC musician include "SexyBack" and "Cry Me a River."

ANSWER: Justin Timberlake

<Laurie, Popular Culture>

13. In 2010, this physicist was one of the co-authors of a paper which found that the interactions within a flock of starlings is scale-free. For 10 points each:

[10h] Name this Italian physicist who co-names the KPZ equation and, with Altarelli, co-names the set of QCD equations that describes the evolution for parton densities. This physicist is also known for his “replica trick” for solving spin glasses.

ANSWER: Giorgio Parisi

[10e] Spin glasses exhibit quenched disorder, in contrast to systems with this property in which all the spins point in the same direction. This property is found in cobalt, nickel, and iron, and disappears above the Curie temperature.

ANSWER: ferromagnetic [accept word forms like ferromagnetism]

[10m] The long-range order of a system can be characterized by applying these functions to the spin-spin interaction. More generally, these functions give the statistical relationship between two random variables.

ANSWER: correlation function [accept autocorrelations]

<Law, Physics>

14. A murky aquatint etching shows this figure contemplating beneath a crescent moon, nude and hunched over on a hill with his muscular body turned away, as he glances backward above the viewer. For 10 points each:

[10h] Name this figure. In a different painting found in the Prado, only a single white goat stands still among throngs of fleeing men and animals as this man stands aggressively with his fist raised amidst swirling clouds.

ANSWER: *The* Colossus [or *El* Coloso; accept *The* Giant or *El* Gigante; accept *The Seated* Giant]

[10e] *The Colossus* shares streaks of blind violence and futility with other paintings by this Spaniard in which the subject’s legs are visibly obscured or buried, such as his *Fight with Cudgels* and *Saturn Devouring His Son*.

ANSWER: Francisco de Goya

[10m] A man is impaled by a tree in *This is Worse*, an entry from this series of posthumously-published prints by Goya that depict the violence wrought by Napoleon’s invasion of Spain.

ANSWER: *The* Disasters of War [or *Los* desastres de la guerra; accept *Fatal Consequences of Spain’s Bloody War with Bonaparte, and Other Emphatic Caprices* or *Fatales consecuencias de la sangrienta guerra en España con Buonaparte, Y otros caprichos enfáticos*]

<Mirkin, Painting & Sculpture>

15. In Kenneth Branagh’s adaptation, this soliloquy is delivered into a double mirror, with two characters eavesdropping on it. For 10 points each:

[10m] Name this soliloquy. Branagh’s adaptation also interprets this soliloquy’s line, “when he himself might his quietus make / With a bare bodkin?” as an implicit stage direction for its speaker to brandish his dagger.

ANSWER: “To be, or not to be”

[10e] Some critics interpret the “To be, or not to be” speech as a feigned soliloquy, meaning that Hamlet meant it to be overheard to deceive this character into thinking that he was too melancholy to take revenge. This character murdered Hamlet’s father.

ANSWER: Claudius

[10h] Evidence in favor of the feigned soliloquy theory includes the fact that Hamlet describes death as one of these specific places “from whose bourn / No traveller returns,” despite the fact that he just saw a ghost. Please give the exact wording.

ANSWER: “the undiscovered country” [prompt on country by asking “what adjective does Hamlet use to describe the country?”]

<French, British Literature>

16. In the aphoristic text Root Verses on the Middle Way, this thinker criticized the metaphysics of schools like the Nayaya by claiming that *dharma*s were empty of any intrinsic nature or essence. For 10 points each:

[10m] Name this founder of the “Middle Way” school of Buddhist philosophy, a monk born around 150 CE in southern India.

ANSWER: Nāgārjuna

[10h] Nāgārjuna’s argument relied on this concept, in which all phenomena occur in relation to other things. The causal chain of this concept is often used to explain suffering and the cycle of *saṃsāra*. Original language term or translation acceptable.

ANSWER: dependent origination [or Pratītyasamutpāda; accept dependent arising; accept interdependent co-arising; accept conditioned arising]

[10e] Nāgārjuna argued for two forms of this concept, the conventional *saṃvṛti* and the ultimate *paramārtha*. Buddhism’s core beliefs include four noble examples of this concept.

ANSWER: truth [or truths; accept Four Noble Truths; accept satya]

<Christensen, Philosophy>

17. The original experiment in which this model was theorized involved administering electric shocks to dancing mice when they stepped inside a certain box. For 10 points each:

[10h] Name this doubly-eponymous model of learning that proposes a relationship between pressure and performance, which posits that an intermediate level of stress correlates with optimal task performance.

ANSWER: Yerkes-Dodson model [or Yerkes-Doson law]

[10e] This term refers to a state of excitement that occurs upon experiencing some sensory stimulus. Too high or low a level of this state can adversely affect performance according to the Yerkes-Dodson law.

ANSWER: arousal

[10m] People with this disorder require an excessive amount of arousal to reach optimal task performance. That discrepancy caused by this disorder can be treated with stimulants such as Concerta.

ANSWER: ADHD [or Attention-deficit/hyperactivity disorder; prompt on attention-deficit disorder or ADD]

<Torres, Social Science>

18. The beginning of this time period brought an end to the so-called “dark ages,” when the only visible light in the universe came from the original Big Bang plasma. For 10 points each:

[10h] Name this cosmic epoch (“EE-pock”) corresponding to objects near redshifts of z equals 7 according to a WMAP study. This epoch lasted from approximately 400 million to 1 billion years after the Big Bang.

ANSWER: epoch of reionization

[10e] Cosmic reionization occurred when newly-formed stars began to release photons in this region of the electromagnetic spectrum. The wavelengths of photons in this region fall between that of visible light and x-rays.

ANSWER: UV light [or ultraviolet light; accept UV or ultraviolet radiation]

[10m] The first of these objects began to form during the epoch of reionization. The presence of Gunn-Peterson troughs in the spectra of these objects indicates whether they formed before or after full reionization.

ANSWER: quasars [or quasi-stellar objects; accept QSO; prompt on active galactic nucleus; prompt on AGN]

<Harvey, Other Science>

19. Both the student Raymond Courrèges (“koo-REZH”) and his doctor father fall for Maria Cross in this author’s novel *The Desert of Love*. For 10 points each:

[10h] Name this deeply-Catholic Nobel Laureate who wrote about residents of southwestern France tormented by temptation in novels like *The Kiss of the Leper*, *The Knot of Vipers*, and *The River of Fire*.

ANSWER: François **Mauriac**

[10e] Mauriac urged his friend Elie Wiesel to write this 1960 memoir detailing Wiesel’s experiences in the Holocaust.

ANSWER: **Night**

[10m] One of Mauriac’s best-known books focuses on the unhappy marriage of a woman with this first name and the surname Desqueyroux (“day-kay-ROO”). A woman with this first name and her lover Laurent murder her husband Camille Raquin in a novel by Émile Zola.

ANSWER: **Thérèse** (“tay-REZ”) [accept **Thérèse** Raquin or **Thérèse** Desqueyroux]

<Harvey, European Literature>

20. The owner of this newspaper was known as the “Naked Horseman” for racing coaches while naked through New York. For 10 points each:

[10m] Give this newspaper, which pioneered the “extra edition” during the Robinson-Jewett murder case. This newspaper financed Henry Morton Stanley’s expedition to find Dr. Livingstone.

ANSWER: **New York Herald**

[10e] Bennett sponsored George Washington De Long’s unsuccessful *Jeannette* expedition to this place. The *Jeannette* inspired Fridtjof Nansen’s *Fram* expedition to this place.

ANSWER: **North Pole** [prompt on the **Arctic**]

[10h] De Long had originally approached North Pole expedition enthusiast Henry Grinnell, a shipping magnate who partnered with a member of this family named Preserved. A Secretary of State from this family defused the *Virginian* affair under Ulysses S. Grant.

ANSWER: **Fish** [or Preserved **Fish** or Hamilton **Fish**]

<Laurie, American History>