

FLopen 2020

Packet H: Adding enharmonic score clues to Wikipedia to own the libs

Edited by: Taylor Harvey and Jonathen Settle

Written by: Mateo Javier Acosta, Mike Bentley, Nicholas Dai, Anthony Delgado, William Grossman, Shawn Jarrard, Zachary Knecht, Leo Law, Lalit Maharjan, Tracy Mirkin, Khanh Nguyen, Grant Peet, Ani Perumalla, Jason Zappulla, and the editors

Tossups

1. **A request by this composer’s young daughter to accompany her on the simple two-finger melody known as “Dog’s Waltz” led him to compose a piano mazurka and requiem for the collection “Variations on Chopsticks.” The 3/4 (“three-four”) third movement of a string quartet by this composer begins with the viola and second violin playing pulses chords while a high register cello plays the following melody: long A, short G sharp-F sharp-G sharp, long E. This composer’s tubercular wife Ekaterina Protopopova is believed to have inspired the melody from the (*) “Nocturne” movement of his second string quartet in D major. A tone poem by this composer uses a English horn melody to represent traders and a pizzicato theme imitative of the hooves of camels. For 10 points, name this “Mighty Five” composer who wrote *In the Steppes of Central Asia*.**

ANSWER: Alexander **Borodin** [or Alexander Porfiriyevich **Borodin**]

<Classical Music, TH>

2. **In this region, gradually riskier “acceptances” are pursued by members of an internet-centered meet-up culture that is the subject of a 2016 novel titled “A Stroll to [this place].” University of Portsmouth professor Jim Smith has led an endeavour to produce a specialty moonshine made entirely from ingredients found in this region. A statue of a trumpeting angel made of steel rebar can be found in this region, which titles the 2019 debut book by Adam (*) Higginbotham. Tours to this region visit the “Azure” indoor swimming pool, as well as a set of bumper cars and an iconic yellow Ferris wheel. The New Shelter, the world’s largest movable metal structure, surrounds an older “sarcophagus” in this region whose construction followed the evacuation of Pripyat. For 10 points, name this European region designated as hazardous following a 1986 nuclear disaster.**

ANSWER: **Chernobyl** Exclusion Zone [accept any answers mentioning **Chernobyl** or **Pripyat**; accept **30 Kilometer Zone**; accept **Chernobyl** Zone of Alienation; prompt on The **Zone**; prompt on northern **Ukraine** or southern **Belarus**] (The subculture in the leadin is the Chernobyl “stalkers,” and the referenced author is Markiyam Kamysh.)

<Geography, TM>

3. **A John Ashbury cento from his collection *Wakefulness* that begins by quoting Byron’s “The Battle of Waterloo” is named for a poem by this other poet. In one poem, this poet wrote about the King and Queen of the pelicans hosting a party on the banks of the Nile for their daughter Nell. A character created by this author gathers the bark of the Tangum tree to construct an apparatus with a lamp inside after being spurned by a girl with (*) sky-blue hands and green hair. In another poem, this poet wrote about a group of creatures that, despite reservation from their friends, “went to sea in a Sieve.” This author of “The Dong with A Luminous Nose” and “The Jumblies” also created a pair of characters that eat “mince and slices of quince” with a “runcible spoon” after going to sea in a “pea-green boat.” For 10 points, name this Victorian nonsense poet who wrote “The Owl and the Pussycat.”**

ANSWER: Edward **Lear**

<Poetry, TH>

Note to moderators: please read the answer line carefully before reading the question.

4. *Description acceptable.* **The Hamburg Taxi sequence tests algorithms that estimate this process. This process is estimated by an algorithm that switches to the small diamond search pattern when minimal block distortion occurs at the center point of the large diamond search pattern. This process is estimated at large scales by applying the Lucas–Kanade (“kah-NAH-dey”) algorithm down a pyramid representation. The aperture problem refers to the ambiguity inherent in using optical flow to estimate this process. Max Wertheimer’s notion of (*) common fate motivates the use of this process in image segmentation. This process appears to occur in a different direction than it actually does in the barber pole illusion. Small rubber balls are attached with reflective tape to suits in order to record this process. For 10 points, 3D models can be animated by capturing what general process?**

ANSWER: **motion** [accept answers indicating that objects in an image or video are **moving**; accept descriptions of bodies **moving**; accept **motion** capture; accept answers of specific types of motion including, but not limited to: **rotation, sliding, translation, circular motion**; accept pixel **motion**; accept apparent **motion**; accept **optical flow** until it is read; accept **tracking**] (The second clue references the diamond search algorithm for block-matching.)
<Other Science: Computer Science, JS>

5. *Foreign language term or common translations acceptable.* **Je Tsongkhapa claims that, because reality has this property, objects can only be known through the principle of independent arising. Recently deceased people in Tibetan tradition are said to have a mind characterized by the “clear light” of this concept. This concept, being, and nihility characterize Keiki Nishitani’s typology of existence. A passage in the Heart Sūtra states that anything with material shape also has this concept. The central tenet of the (*)**

Madhyamaka (“MUD-yuh-muh-kuh”) tradition states that all dharmas possess this quality. According to the Perfection of Wisdom sūtras and the teachings of Nāgārjuna, all entities lack *svabhāva*, meaning they possess this quality. For 10 points, name this key concept from Mahāyāna Buddhism that denies the intrinsic existence of all things, sometimes translated as “voidness.”

ANSWER: **śūnyatā** (“SHOON-yuh-tah”) [accept **emptiness**; accept **voidness** until “voidness” is read; accept **non-duality**; accept **anātman**; accept **anātta**; accept **śūnya** or **śūnna**; accept **thusness**; accept **non-dualism**; accept the **not-self** or the **non-self**]
<Religion, TH>

6. **A 1964 Robert Murphy paper discusses how a form of this practice among Tuareg men generates “social distance.” Sharon Traweek noted that those in positions of prestige tended to take this practice less seriously while studying physicists working at SLAC. A Terrence Turner paper that opens by riffing on Rousseau’s “born free” quip investigates whether this practice is a human universal by discussing the Kayapo, who only (*) minimally engage in it. According to Eric Hobsbawm, the “highland myth” resulted in the adoption of an “invented tradition” concerning this practice in Scotland. Anthropologists studying this broad cultural practice may note the gender roles associated with objects like the Turkish *salvar* or the North African *djellaba* (“JEH-la-ba”). For 10 points, name this cultural practice that involves using items like dashikis or kilts.**

ANSWER: wearing **clothes** [accept **dress**; accept **fashion**; accept using **clothing**; accept **veiling**; accept **wearing** a veil, a kilt, or any other specific piece of clothing; prompt on **tartanry**] (The Turner quote is “Man is born naked and everywhere he is in clothes.”)
<Social Science: Sociology/Anthropology, TH>

7. While guarding a corpse, a man in this novel is hypnotized by a weasel, is mutilated in his sleep, and has his facial features replaced with wax parts without him noticing. The protagonist of this novel gets pranked by an entire town into thinking he murdered three men when really he just stabbed full wine bladders. After watching a woman transform into an owl, the protagonist of this novel begs the maid (*) Photis to help him do the same. A cheese merchant in this book relates an incident in which Socrates has his heart replaced by sponge. While being passed from owner to owner, this book's protagonist desperately tries to eat some roses to transform back into a human and later joins the Cult of Isis. A lengthy middle portion of this novel tells the tale of Cupid and Psyche. For 10 points, name this ancient Roman novel written by Apuleius, which is named for a donkey.

ANSWER: The Golden Ass [or Asinus aureus; or Metamorphoses of Apuleius; reject "Ovid's Metamorphoses"]
<Long Fiction, TH>

8. A swinging movement called *ginga* ("ZHEEN-guh") and a type of cartwheel called *au* are central to an activity developed in this country. The home of a chef and religious figure from this country was an early gathering place for practitioners of one dance style, which is often performed to the song "On the Telephone." A type of circle dance from this country takes place within a formation called the *roda*. A 2/4 ("two-four") time dance from this country uses the following rhythm with no rests (read slowly): eighth, eighth, sixteenth, eighth, sixteenth, eighth, eighth. In the 19th century, (*) lundu and maxixe ("mah-SHEESH") dances developed in this country, the latter of which is sometimes called this country's tango. Carmen Miranda popularized a lively dance from this country internationally. An activity that combines acrobatics, martial arts, and dance, capoeira, began in this country. For 10 points, name this South American country where samba developed.

ANSWER: Brazil [or Republic of Brazil]
<Other Arts: Visual, TH>

9. Malaria outbreaks and insurgent attacks among troops occupying this country led to the Revolt of the Bersaglieri. Shortly after World War I, a group of Catholics in the north of this country formed the short-lived Republic of Mirdita. Rioters in this country's capital freed prisoners and sacked the royal residence after its Queen Geraldine and Prince Leka absconded with most of the central bank's gold reserves. This country's fascist party, the PFSH, was led by (*) Tefik Mborja. This country's commander Qazim Koculi ("koht-SOO-lee") led a successful guerilla campaign against the forces of Giovanni Giolitti during the Vlora War. Following the Battle of Durrës, Victor Emmanuel II was crowned emperor of this country, three years after the annexation of Ethiopia. For 10 points, Italy's 1939 invasion of what Balkan country led to the exile of its King Zog?

ANSWER: Albania [or Shqiperia]
<Post-500 European History, TH>

10. In transverse field muon spin relaxation, phenomena that form hexagonal lattices in these materials cause the polarization function to take the shape of a Gaussian damped oscillatory function. Bitter decoration was first introduced for, and is chiefly used for, the visualization of phenomena in these materials. Within a certain radius, the magnetic field of phenomena in these materials follows a zeroth-order modified Bessel function of the second kind of ξ ("ksaai") over λ . These materials with negative surface energy are defined as having a ratio of (*) penetration depth to coherence length greater than one over the square root of two. Two critical H fields are characteristic of these materials in which Abrikosov vortices form. The Meissner effect is not completely exhibited by, for 10 points, what subset of materials that possess zero resistance?

ANSWER: type-II ("two") superconductors [accept high temperature superconductors; accept cuprate superconductors; accept high-Tc superconductors; prompt on superconductors by asking "what type?"]
<Physics, JS>

11. R. J. Gillings noted the “particular liking” an author from this culture had for the fraction two-thirds in a discussion of the “2 over n” multiplication table. The first six problems in a text from this culture outline how to divide 2, 6, 7, 8, and 9 loaves of bread among 10 men. Individuals from this culture were able to solve linear equations without knowledge of algebra through a false position method called *aha*. Evidence for knowledge of geometric similarity in this culture is demonstrated by a slope-like concept called (*) *seked*. Much of the knowledge about the mathematics of this civilization, which used a decimal numeral system, are found in documents named for Moscow and Rhind. Pythagoras likely learned geometry from priests of, for 10 points, what civilization whose mathematical innovations were used in designs for the pyramids?

ANSWER: Ancient Egyptian civilization [accept more specific answers like Ptolemaic or Hellenistic Egypt; accept Old Kingdom, Middle Kingdom, or New Kingdom]

<Historiography/Archeology, TH>

12. A niche sculpture in this building shows Melchizedek giving the Eucharist to Abraham, who is unusually dressed as a medieval knight. This building’s west facade features two adjacent sets of jamb sculptures in contrasting styles: one a classical style Visitation scene and the other an older early Gothic Annunciation. This building contains a series of tapestries donated by Robert de Lenoncourt, while its Treasury holds fragments of the (*) Holy Flask. This building unusually features a rose window in its tympana, above which is a Gallery of Kings featuring a dove near a man being baptised. Marc Chagall designed three stained glass windows for this building’s axial chapel. This building’s *Smiling Angel* sculpture was beheaded by German shelling during World War I. For 10 points, name this High Gothic cathedral located in a namesake city in Champagne, the coronation site of twenty-five French monarchs.

ANSWER: Reims (“rans”) Cathedral [or Notre-Dame de Reims; or Our Lady of Reims; reject “Notre Dame” alone]

<Other Arts: Visual, TH>

13. The expression of *nub* and *ap* in brine shrimp provides molecular evidence for one theory of the origin of these body parts. A reconstructed template for these body parts from the first common ancestor to have them is the archedictyon, which is labeled using the Comstock–Needham system. These body parts that display partial serial homology to treehopper helmets generally appear on T2 and T3. The current theory for the origin of these body parts combines earlier theories of their evolution from the tergum or structures near the (*) pleural plate. A family of proteins named for these body parts binds to frizzled receptors to inhibit degradation of beta-catenin. The origin of these body parts is unclear because of the lack of transitional fossils between Apterygota (“ap-teh-ree-GOH-tuh”) and Pterygota (“teh-ree-GOH-tuh”). For 10 points, lepidopterans are named for having scales on what body parts that enable flight?

ANSWER: insect wings [accept wingless; accept wingless-related integration site]

<Biology, JS>

14. **These people are the focus of the Nordic relational model championed by Jan Tøssebro, which emphasizes social welfare changes. Vic Finkelstein, a writer who studies these people, illustrated one concept with a short story in which money is collected in helmets for people constantly banging their heads on door frames. A book by Tom Shakespeare on the “rights and wrongs” of a field that studies these people considers materialist, critical realist, and cultural approaches to their lives. A foundational text on these people, Simi Linton’s “Reassigning Meaning,” views this label as a political category rather than a designator of (*) “personal tragedy.” Mike Oliver’s work on these people discusses manifestation that can be visible or invisible and the employment of people-first language. For 10 points, name this broad class of people who may be deaf or use wheelchairs.**

ANSWER: **disabled** people [accept word forms; accept people with **disabilities**; accept people with speech, communication, learning, mental health, physical, emotional, or cognitive **disabilities**; accept people with physical or mental **impairments**; accept more pejorative terms like **handicapped, differently-abled, crippled, special needs**, etc; anti-prompt on any specific disability such as **blindness, deafness, or wheelchair-using** until “deaf” is read by asking “what broad category of people do those people belong to?”]

<Social Science: Sociology/Anthropology, TH>

15. **A book by this writer notes that Wilde’s opening description of the picture of Dorian Gray frames it high up in the field of vision “like many Atget (“ad-GYEH”) photographs.” A “panic” brought about by authors like J. M. Barrie and George du Maurier is discussed in an essay by this author that puns on the name of a Henry James story. This critic recalled asking a friend whether they thought the HIV virus was manufactured by the government in an essay that advocates “reparative” over “paranoid” reading. A book of essays by this critic, (*) *Between Men*, coined the term “homosocial.” This critic’s major work uses an example from *Billy Budd* to argue that limiting orientation to the homosexuality-heterosexual binary is too simplistic. For 10 points, name this critic who pioneered the application of queer theory to literature with her book *Epistemology of the Closet*.**

ANSWER: Eve Kosofsky **Sedgwick** (The essay is “The Beast in the Closet,” which references James’s story “The Beast in the Jungle.”)

<Other Literature, TH>

16. **In a paper titled for a thinker’s “exercises,” Zeno Vendler argued that this idea was intended as a psychological device inspired by Ignacius of Loyola’s mantra to “go against.” Home world reliabilism and indexical reliabilism have both been posited as ways of dealing with a “new” epistemological problem proposed by Stewart Cohen and named for this figure. Pierre Gassendi objected to the universal and (*) hyperbolic nature of another thinker’s deployment of this entity, which he argued was “more like adopting a new prejudice than relinquishing an old one.” The thinker to originally posit this entity claims that it seeks to “lay traps for my credulity” by forming “the Earth, colors, figure [and] sounds” as illusions. For 10 points, name this malicious entity posited in Descartes’s First Meditation, which could trick a dreamer into believing that there is an external world.**

ANSWER: the evil **demon** [accept the **evil genius**; accept Descartes’s malicious **demon**; accept **deus decemtor** or **deceiving God**]

<Philosophy, TH>

17. A man in this play thinks that his sink is full of coffee grounds, but realizes that they are ants once they start moving. A one-legged veteran in this play jokes that all the generals did during the Great War was lay up in a Paris hotel with “a dozen broads pinned to their mustaches.” After his grandson complains that he doesn’t have money for tap dancing lessons, a Marxist grandfather in this play claims that life is only worth living if it leads to a revolution. In this play, the matriarch (*) Bessie tries to set her daughter Hennie up with the immigrant border Sam to avoid the scandal of her pregnancy. At the end of this play, Jacob leaves Ralph five thousand dollars through his life insurance after selflessly committing suicide. The struggles of the Jewish Berger family in the Depression-era Bronx are the focus of, for 10 points, what play by Clifford Odets?

ANSWER: Awake and Sing!

<Drama, TH>

18. A series of sculptures by Simon Schubert features women in bathtubs engulfed in this material, which was used to make a keffiyeh in a piece by Palestinian artist Mona Hatoum. Sculptor Nagi Noda is best known for a series of hats made of this material shaped like realistic animal heads. It’s not meat, but an assemblage by Carolee Schneemann combines four cutting boards with scraps of this material. The death of Prince Consort Albert inspired a Victorian fad that involved making flowery sculptures out of this material. Some of this material emerges from the top of a cello in Man Ray’s sculpture (*) *Emak Bakia*. A lunch conversation with Dora Maar featuring the quip “anything can be covered” in this stuff inspired an artist to attach some of it to a cup, saucer, and spoon. *Object* by Meret Oppenheimer notably uses, for 10 points, what soft material derived from a Chinese antelope?

ANSWER: hair [or fur; accept human hair or horse hair; accept synthetic or natural hair; accept pelt]

<Painting/Sculpture, TH>

19. For a separation R in units of the Bohr radius, one of these objects for hydrogen equals the exponential of negative R times the sum of the following: one, R , and R squared over 3. NDDO and other semi-empirical methods based on the ZDO approximation set all of these objects equal to the Kronecker delta, making the matrix of which they are elements a unit matrix. The Fock matrix times a matrix C equals a matrix with elements equal to these objects times C times epsilon in the Roothaan equation. Molecular orbitals are normalized by one of these (*) integrals defined as the integral over all space of $\phi_a^* \phi_b$, where ϕ_a and ϕ_b are atomic orbitals. These integrals are zero for orthogonal wave functions. For 10 points, name this integral that measures how much of the regions described by two wave functions coincide.

ANSWER: overlap integrals [accept overlap after “integral” is read; accept vibrational overlap integral; accept overlap matrix; prompt on electron integrals; prompt on S]

<Chemistry, JS>

20. An Alex Mar article in *The Believer* describes how the headquarters of a movement named for this figure unexpectedly moved from the Bay Area to the sleepy suburb of Poughkeepsie. Patricia Pulling formed the organization B.A.D.D. to oppose what she saw as a recruitment tool for individuals interested in this figure. Individuals accused of interest in this figure are the subject of the now-discredited book *Michelle Remembers*. Employees at (*) McMartin preschool and the West Memphis Three were targets of groups opposing the supposed influence of this figure. A group named for this figure commissioned an 8.5 foot tall bronze sculpture intended to be displayed alongside the Ten Commandments at the Oklahoma State Capitol. A rhyming “panic” afflicting American Christians in the 1980s centered on, for 10 points, what figure who names a religious movement founded by Anton LaVey?

ANSWER: **Satan** [accept The **Devil**; accept **Baphomet**; accept **Lucifer**; accept **Satanism**; accept **Satanic** Panic; prompt on Anton LaVey until it is read by asking “he founded an organization named for what other figure?”] (B.A.D.D. stands for “Bothered About Dungeons and Dragons.”)

<US History, LM>

21. In June 2019, this US state’s governor vetoed 180 items in its budget; its three-fourths veto override requirement is the strictest in the country. The 2020 Pulitzer for Public Service went to a *ProPublica* piece on how a third of villages in this state lacked police services. Other communities in this state such as Cordova have been severely affected by a reduction in its (*) Marine Highway ferry system by a governor who narrowly escaped a recall vote in 2020 after smearing rivals on Facebook. In 2020, Native American Vietnam veterans were granted half a million acres of land in this state, where the Permanent Fund Dividend was controversially reduced in 2016. George W. Bush’s Secretary of the Interior defended a plan to open part of this state to development by declaring it a “flat, white, nothingness.” For 10 points, name this state whose ANWR wildlife refuge is also a prominent oil reserve.

ANSWER: **Alaska**

<Current Events, MB>

22. A gauge worker in this country died after a flywheel exploded at a train station, leading to the abandonment of the Telefunken Railroad project. Citizens of this country rebelled after Edwin Pollock issued a law fining citizens for playing inter-township cricket matches. After this country’s independence in 1962, Fred Bertham stayed on as the Minister of Finance and changed his name to Fereti Misapita. This country’s independence was demanded on “Black Saturday” by the Olaf Frderick Nelson-led (*) Mau Movement. This country suffered the worst effects of the Spanish flu pandemic per capita when it was brought there by the SS *Talune*, a New Zealand cargo ship. This country’s Mālietoa Tanumafili II oversaw reform of its Fa’amatai system. For 10 points, name this Polynesian country governed from Apia and located across the International Date Line from an “American” counterpart.

ANSWER: **Samoa** [or Independent State of **Samoa**; or **Western Samoa**; reject “American Samoa”]

<World History, ZF>

Bonuses

1. A group of Black supporters of this cause became known as the “ravagers of Georgia” after being left behind during the 1782 evacuation of Savannah. For 10 points each:

[e] Name this cause supported by Black men like James Reid and Ralph Henry, many of whom were promised freedom for fighting *against* the Continental Army led by George Washington.

ANSWER: **loyalists** [accept pro-**British**; accept answers indicating fighting for the **British** Colonial administration during the American Revolutionary War]

[m] In 1775, this Colonial Governor issued a declaration promising liberation to slaves who joined “his Majesty’s Troops,” which resulted in the formation of the Ethiopian Regiment.

ANSWER: John **Murray**, 4th Earl of **Dunmore** [accept either unlined part; accept Lord **Dunmore**]

[h] After fleeing Virginia with the rest of the Ethiopian Regiment, this notorious Black Loyalist conducted a series of guerilla raids in Monmouth County, New Jersey and kidnapped several Patriot officers. He died of a musket wound while besieging the forces of Joshua Huddy.

ANSWER: Colonel **Tye** [accept Titus **Cornelius**; accept **Titus**]

<US History, TH>

2. Magid (“**muh-JEED**”) returns from Bangladesh to work with Marcus Chalfen on FutureMouse in this novel. For 10 points each:

[e] Name this 2000 novel about the families of World War II veterans Samad Iqbal and Archie Jones, the first by Zadie Smith.

ANSWER: ***White Teeth***

[m] In this most recent Smith novel, the unnamed narrator joins Australian popstar Aimee on trips to Africa to scout out potential charity projects and later reunites with her childhood friend Tracey. This novel takes its title from an Astaire and Rogers musical film.

ANSWER: ***Swing Time***

[h] The first section of Smith’s novel *On Beauty* uses this unusual narrative device. This narrative device is used for the entirety of David Llewellyn’s novel *Eleven* and for the 2000 debut novel of Matt Beaumont.

ANSWER: they are made up of **emails** [prompt on **epistolary** or **correspondence**; prompt on **internet**; reject “letters,” “mail,” “texts,” or “instant messages”] (The Matt Beaumont novel is *e.*)

<Long Fiction, GP>

3. Answer the following about French films featuring fire, for 10 points each:

[m] Name this director of *Portrait of a Lady on Fire*, in which Marianne is inspired to paint the title work as a group of women clap and sing the lyrics “*fugere non possum*” around a bonfire.

ANSWER: Céline **Sciamma**

[h] Images of oil fields on fire end this 1953 Henri-Georges Clouzot thriller. In this film, Yves (“**eev**”) Montand plays a driver who is hired to transport nitroglycerine across dangerous South American terrain for an oil company.

ANSWER: *The **Wages of Fear*** [or *La **Salaire de Peur***]

[e] Firemen set books ablaze in this French New Wave director’s adaptation of *Fahrenheit 451*. He also directed *Jules and Jim* and *The 400 Blows*.

ANSWER: François **Truffaut**

<Other Arts: Film, AD>

4. A thinker argued that this process resulted in reproduction being regarded as sinful and caused life to be seen as a mere “investment” in prospects for the afterlife. For 10 points each:

[h] Name this process explained in *The Antichrist* as the reversal in which certain systems of morality elevate the weak over the strong. The thinker that coined this term wrote that this process inverted the natural order of master-slave morality.

ANSWER: **transvaluation** of values [accept *Umwertung*]

[e] Transvaluation and master-slave morality are among the key moral concepts presented by this German thinker in books like *The Antichrist* and *On the Genealogy of Morals*.

ANSWER: Friedrich **Nietzsche**

[m] A later section of *The Antichrist* claims that the clerical class inspires piety through the weaponization of a “holy” one of these things. Earlier, Nietzsche prefigured the postmodern theory of language in an essay on these things and their opposites “in a nonmoral sense.”

ANSWER: **lies** [accept The Holy **Lie**; accept **untruths**; accept **falsehoods** or **falsities**; accept “On Truth and **Lie** in a Nonmoral Sense”]

<Philosophy, TH>

5. Answer these questions about the scholarly work of the 17th century Danish physician and antiquarian Ole (“OOH-luh”) Worm. For 10 points each:

[e] Worm is best remembered today as the namesake of the Wormian Bones, which are extra bone bits that can fill the sutures in this skeletal structure. This structure is made up of the mandible and cranium.

ANSWER: the human **skull**

[m] Worm’s illustration of his pet one of these animals from the genus *Pinguinus* is the only known image of one of them drawn from life. In 1840, the last known wild one of these birds in the British Isles was beaten to death by sailors near St. Kilda when they thought it was a witch causing a storm.

ANSWER: **Great auk** [accept *Pinguinus impennis*; prompt on **auk**]

[h] Worm insisted that the symbols on this Swedish dyke spelled out the word “Lund.” The markings found at this site were the focus of a 19th century controversy during the Gothicism before Jöns Jacob Berzelius proved the supposed inscription was actually just made up of natural cracks in the rock.

ANSWER: **Runamo** [accept **Runamo** inscription]

<Other Academic, TH>

6. This place is the central concept of a political document whose preamble is an Alurista poem that declares “we are a nation, we are a union of free pueblos, we are [this place].” For 10 points each:

[h] Name this place written about in many works of the poet-activist Corky Gonzales. Alurista also wrote the collection *Floriscanto* (“floor-ee-CAHN-toe”) *en [this place]*, the tenth canto of which allegorizes the traditional serape (“ser-AH-pay”) to the character of La Raza.

ANSWER: **Aztlán** [accept *Floriscanto en Aztlán*]

[e] A poem from *Floriscanto en Aztlán* describes how this musician’s songs were “amplified / to mythological multitudes.” A Terrance Hayes sonnet questioning his own ability to dance invokes this guitarist of “Purple Haze” and “Voodoo Chile.”

ANSWER: Jimi **Hendrix** [or James Marshall **Hendrix**; or Johnny Allen **Hendrix**]

[m] Another of Alurista’s cantos enjoins “we must assert our bronze” in order “to breed walking” examples of these animals. That poem references a song popular during the Mexican revolution about one of these animals which can no longer walk because she lacks “Las patitas de atrás.”

ANSWER: **cockroach** [or la **cucaracha**; prompt on **bugs** or **insects**]

<Poetry, JS>

7. An “alliterative” poem named for this event survives only in the Thornton manuscript, and introduces a blade called Clarent that is thought to represent the concept of peace. For 10 points each:

[m] Name this event that in one account is preceded by a vision of its subject strapped to a literal wheel of fortune along with the other Eight Worthies. Two separate 15th-century poems named for this event recount a vision of a giant bear battling a dragon as a ruler crosses a channel.

ANSWER: the **death** of King **Arthur** [accept synonyms for **death**; accept *Le Morte d'Arthur*; accept *Alliterative Morte Arthure*; prompt on **death** alone by asking “of whom?”]

[h] The *Alliterative Morte Arthure* recounts Arthur's battle against a baby-roasting giant named for this location who kills the Duchess of Britany. The rare Middle English word “englames” is used to describe the spilled innards of the giant named for this place.

ANSWER: **Mont-Saint-Michel** [accept the Giant of **Mont St. Michel**]

[e] In the *Alliterative Morte Arthure*, Guinevere bears children to this man while Arthur is off crusading. In Malory's account, this wicked nephew of Arthur exposes Lancelot and Guinevere's affair and eventually becomes High King of Britain.

ANSWER: **Mordred** [accept **Modred**; accept **Medraut** or **Medrawt**; accept **Modredus**]

<Mythology, JZ>

8. The 1865 British punitive expedition to this modern day country looted many wooden replicas of the Ark of the Covenant called *tabots*. For 10 points each:

[e] Name this modern-day African country once ruled by the Christian Zagwe and Solomonic Dynasties.

ANSWER: **Ethiopia** [accept **Abyssinia**]

[h] During this period, the power of the Solomonic monarchs was mostly confined to their capital of Gondar. In this 18th and 19th-century period, Ethiopia was fragmented into feudal fiefdoms led by powerful regional groups like the Yejju Tribe of the Oromo.

ANSWER: **Zemene Mesafint** [accept the **Era of Princes**, **Era of Judges**, **Age of Princes**, or **Age of Judges**]

[m] Several of the powerful figures during the Zemene Mesafint, like Mikael Sehul, had this Ge'ez language royal title meaning “head.” A 1989 book by Ryszard Kapuściński (“REE-shard kah-poosh-CHEEN-skee”) documents the late reign of a later ruler who used this title but later adopted a different regnal name.

ANSWER: **Ras** [accept **Ras** Tafari; accept **Ras** Mikael Sehul; reject “Haile Selassie”]

<World History, TH>

9. An increase in blood osmolarity stimulates the secretion of this hormone. For 10 points each:

[m] Name this hormone that is produced in the magnocellular neurons of the hypothalamus along with oxytocin. Diabetes insipidus is caused by either low levels of, or reduced response to, this hormone.

ANSWER: **ADH** [or **antidiuretic** hormone; accept arginine **vasopressin** or **AVP**; accept **argipressin**]

[e] ADH increases the permeability of the collecting ducts that connect these functional units of the kidney. In these structures, blood filtered by the glomerulus is caught by renal tubules.

ANSWER: **nephrons**

[h] Release of ADH increases in response to the activation of this type of receptor located in the atria and great veins. ADH response to this type of receptor is less sensitive but more potent than its response to osmo-receptors.

ANSWER: atrial **volume** receptors [accept low-pressure **baroreceptors**; accept high-pressure **baroreceptors**; accept veno-atrial **stretch** receptors; accept **pressoreceptors**; prompt on **mechanoreceptors**]

<Biology, JS>

10. 14th-century pieces in this genre can be divided into a repeating series of pitches called the color and a long recurring rhythmic unit called the *talea*. For 10 point each:

[m] Name this musical form from the *ars nova*, exemplified by Philippe de Vitry's *In arboris/Tuba sacre fidei/Virgo Sum*, which makes use of isorhythms.

ANSWER: isorhythmic **motets**

[h] Though the texts motets usually feature sacred subject matter, several of the motets in this collection satirize the lax morals of the clergy and contemporary liturgical events. This anthology of 13th and 14th-century music features 167 rondeaux, ballades, chanson-refrains, plainsongs, and motets, five of which are by de Vitry.

ANSWER: ***Roman de Fauvel***

[e] The color lines in de Vitry's motets were sung by men with this vocal range, which is higher than the baritone or bass. This voice type represents the "T" in typical S-A-T-B vocal arrangements.

ANSWER: **tenor**

<Classical Music, TH>

11. Along with Hieronymus Georg Zeuthen, this mathematician helped Danish mathematics obtain worldwide recognition. For 10 points:

[h] Name this mathematician whose theorem that any bridgeless cubic graph has a perfect matching is proved with the Tutte–Berge formula. This mathematician's graph is the smallest bridgeless cubic graph with no 3-edge-coloring.

ANSWER: Julius **Petersen** [accept **Petersen**'s theorem; accept **Petersen** graph]

[m] The Petersen graph is usually drawn as a shape with this many vertices inside another shape with this many vertices. Kuratowski's theorem states that a finite, planar graph does not contain a subgraph that is a subdivision of $K_{3,3}$ or K_5 , which is the complete graph with this many vertices.

ANSWER: **five**

[e] In his famous paper *The Theory of Regular Graphs*, Petersen proved that a graph is 2-factorable if and only if it is regular and this quantity is even. A vertex's value for this quantity is the number of edges that touch it.

ANSWER: **degree** [or **valency**]

<Other Science: Mathematics, LL>

12. The western movement of the Xiongnu confederacy pushed these people south, which in turn pushed the Sacae into the Greco-Bactrian Kingdom. For 10 points each:

[h] Name these Tocharian-speaking nomads who, along with the Wusun, were visited by the Han diplomat Zhang Qian, who reported on their one hundred thousand horse archers.

ANSWER: **Yuezhi** [accept Greater **Yuezhi** or Lesser **Yuezhi**; prompt on, but DO NOT REVEAL, **Kushans**]

[m] The Yuezhi eventually emigrated southeast and formed this Silk Road empire that encompassed northern India and the Tarim Basin. The conversion of this empire's leader Kanishka was largely responsible for the spread of Buddhism in the 2nd century CE.

ANSWER: **Kushan** Empire [or **Kushana**]

[e] Much of the known dynastic history of the Kushan rulers comes from a monumental one of these works in the town of Rabatak. Ashoka the Great promulgated a series of "edicts" in this form.

ANSWER: rock **inscription** [accept Rabatak **Inscription**; accept **relief** sculpture or bas-**relief**; accept **Rock** Edicts; accept **stela** or **stela**; accept carved **rocks**; prompt on **sculpture**]

<Ancient History, TH>

13. In the “Scylla and Charybdis” episode of *Ulysses*, Stephen Dedalus states this acronym after borrowing money from real-life author George William Russell, punning on Russell’s short pen name. For 10 points each:

[m] Name this acronym used by Habsburg emperor Frederick III as a signature-cum-motto. This acronym is jokingly used patriotically by modern-day Austrians, as it was said to stand for “All the world is subject to Austria.”
ANSWER: **A.E.I.O.U.** [accept **A.E.I.O.V.**] (Russell’s pen name was *Æ*.)

[h] Another word commonly used by Austrians, particularly the Viennese, is this four-letter word literally meaning “old one,” but used in context as “dude,” a filler word, or when exasperated or surprised.

ANSWER: **oida** [or **olta**; or **olda**]

[e] The word for this food is often misspelled as “wurscht” in a German and Austrian idiom meaning “I don’t care.” The word “wiener,” which means “Viennese” in German, refers to this food in English, although the word “Frankfurter” is more commonly used for this food in Austria.

ANSWER: **sausage** [accept **hot dog**] (The phrase is “Das ist mir Wurst/Wurscht.”)

<Other Academic, AP>

14. This author wrote an essay titled “How to Stop Being a Monkey” that mocks the views of European critics with a satirical fable about a monkey who dreams of becoming a writer of satires. For 10 points each:

[h] Name this author of a story that reads, in its entirety, “When he woke up, the dinosaur was still there.”

ANSWER: Augusto **Monterroso** [or Augusto **Monterroso** Bonilla]

[e] In a Monterroso story, a priest tries to save himself from a Mayan sacrifice by predicting an eclipse, but is killed anyway because the Mayans know how eclipses work, intentionally subverting the trope in this author’s novel *A Connecticut Yankee in King Arthur’s Court*.

ANSWER: Mark **Twain** [or Samuel Langhorne **Clemens**] (The story is “El eclipse.”)

[m] In Monterroso’s story “Mr. Taylor,” a hunter starts a business in an Amazonian country that mass-produces these objects for export to the U.S. Mathilde de la Mole kisses and enshrines one of these objects at the end of *The Red and the Black*.

ANSWER: severed **heads** [accept **skulls**; accept the **head** of Julien Sorel; prompt on **corpses** or dead **bodies**]

<Short Fiction, AP>

15. This venue first opened in 1977 in the building that was once the Gallo Opera House designed by Eugene De Rosa. For 10 points each:

[h] Name this New York City nightclub at the center of the disco subculture. This venue owned by Steve Rubell and Ian Schrager was known for its policy of open drug use and for celebrity guests like Salvador Dalí and Truman Capote.

ANSWER: **Studio 54**

[m] This German singer and model recorded part of a 1967 album in the building that later housed Studio 54. She also recorded experimental albums such as *The Marble Index* and *Desertshore*.

ANSWER: **Nico** [or Christa **Päffgen**] (The 1967 album is *The Velvet Underground & Nico*.)

[e] Nico was a frequent collaborator of this director of the films *Empire*, *Chelsea Girls*, and *Sleep*, who was also known for his silkscreen depictions of Campbell’s soup cans.

ANSWER: Andy **Warhol** [or Andrew **Warhola**]

<Pop Culture, WG>

16. This theologian discussed the attempts of Comte and Nietzsche to construct a moral code apart from God in *The Drama of Atheistic Humanism*. For 10 points each:

[h] Name this French theologian and Jesuit cardinal who discussed the political relevance of theological ideas in books like *Supernatural* and *Corpus Mysticum*. This member of the New Theology movement played an active role shaping doctrine at Vatican II (“two”).

ANSWER: Henri de **Lubac** [or Henri-Marie Joseph Sonier de **Lubac**]

[m] Another significant Lubac book was his monograph how medieval thinkers performed this activity in allegorical, anagogic, typological and tropological ways. Competing methods for this activity include the historical-grammatical and the historical-critical methods.

ANSWER: scriptural **exegesis** [accept Biblical **exegesis**; accept scriptural **hermeneutics**; accept answers like determining the **meaning** of or **interpreting scripture** or Holy **writings**; accept *Medieval Exegesis*; prompt on **reading** scriptures or the Bible]

[e] Practitioners of revealed exegesis insist that scriptures have a fuller meaning than the intended meaning of the authors because of the intervention of this divine entity. In Acts, this member of the Trinity descends upon the Apostles as tongues of fire.

ANSWER: the **Holy Spirit** [accept the **Holy Ghost**]

<Religion, TH>

17. Michele Gordigiani painted a seated portrait of this woman with noticeable dark bags under her eyes. For 10 points each:

[h] Name this woman whose hand was depicted in bronze clasping her lover’s in a Harriet Hosmer sculpture found at the Met.

ANSWER: Elizabeth **Barrett Browning** [accept either underlined part]

[e] Harriet Hosmer also created one of these structures for Judith Falconnet, which was the first artwork by an American to be displayed in a Roman church. Michelangelo created a horned Moses sitting in front of one of these structures belonging to Pope Julius II.

ANSWER: a **tomb** [accept **Tomb of Judith Falconnet** or **Tomb of Pope Julius II**; accept **funerary monument**]

[m] This Michelangelo sculpture, along with similar sculptures of “rebellious” and “young” subjects, was originally intended for the tomb of Julius II. The nearly-nude subject of this sculpture wears a shirt rolled up to his shoulders while clutching his head with his eyes closed.

ANSWER **Dying Slave** [or **Schiavo morente**; prompt on **slave**]

<Painting/Sculpture, TH>

18. The first use of tin zeolite beta catalysts was Corma et al.’s attempt to avoid the use of these compounds in favor of cheaper and greener reagents. For 10 points each:

[m] Name these compounds that include MPPP and m-CPBA, the latter of which is prepared by reacting an acid chloride with hydrogen peroxide.

ANSWER: **peroxyacids** [or **peracids**; or **peroxycarboxylic acids**]

[h] The butterfly-like transition state of the epoxidation of alkenes by peroxy-acids is this type of compound. These non-planar compounds contain two rings connected by a single atom.

ANSWER: **spiro** compounds

[e] Peroxy-acids convert ketones to esters in a reaction of this type named for Baeyer and Villiger. In electrochemistry, this type of reaction involves a loss of electrons.

ANSWER: **oxidation** [prompt on **redox**; prompt on **reduction-oxidation**; reject “reduction”]

<Chemistry, JS>

19. A leader of this party is largely responsible for drafting the Constitution of 1927, which excised all mentions of Northern Ireland and the British monarchy and introduced the position of *taoiseach* (“TEE-shuk”). For 10 points each:

[m] Name this conservative political party led by Éamon de Valera for much of the 1930s. This zealously Catholic party mandated Irish languages classes in states schools, often at the expense of art and science classes.

ANSWER: **Fianna Fáil** (“FEE-uh-nuh FOYL”) [accept **Fianna Fáil** - The Republican Party; prompt on Soldiers of Destiny or Warriors of Fál]

[h] De Valera’s Fianna Fáil established the Censorship of Publication Board, which targeted all publications described by this vague two word phrase. A committee named for this phrase researched and banned all works that didn’t jibe with a Catholic worldview, including nearly all European and experimental writing.

ANSWER: “**evil literature**” [accept Committee on **Evil Literature**]

[e] Despite repressive censorship of writing in the De Valera era, the Irish were able to stay informed about the world at large through this medium. Orson Welles adapted *The War of the Worlds* for a famed 1938 broadcast in this medium.

ANSWER: **radio** [accept **radio** broadcasting; accept **radioplay**]

<Post-500 European History, TH>

20. Jerónimo Corte-Real’s epic poem about one of these events describes how Manuel de Sepúlveda walked naked into the bush, never to be seen again, after his family was killed in one of them. For 10 points each:

[m] Name these events that are the subject of an 18th-century “tragic history” by Bernardo Gomes de Brito. The protagonist of a different work prays to Thetis to avoid one of these events after encountering a huge monster who emerges from a black storm cloud.

ANSWER: shipwrecks [or **naufrágios**; accept **Naufrágio de Sepúlveda**] (The “tragic history” is the *História trágico-marítima*.)

[e] Luís Vaz de Camões (“kuh-MOYNSh”), an author from this country, apocryphally swam to shore while holding a manuscript above the water instead of saving his Chinese lover after suffering a shipwreck on the Mekong River. That manuscript was of *The Lusíads*, the national epic of this country.

ANSWER: **Portugal**

[h] Each play in this 16th-century Portuguese author’s *Trilogy of Ships* involves a cast of diverse, often stereotypical characters at a port discussing whether each deserves to board an angel’s ship to Heaven or a devil’s ship to Hell.

ANSWER: Gil **Vicente** (“zheel vi-SENT”)

<Other Literature, AP>

21. Ever since Max Abraham and Hermann Minkowski posited rival expressions for momentum density in linear media, theorists have been embroiled in a debate over who is correct and why. For 10 points each:

[h] Give either Abraham or Minkowski’s expression for the momentum density. Ignore factors of one over c -squared in your answer, which should not have a negative sign. Use standard notation for electromagnetic fields.

ANSWER: **E cross H** [or **electric field cross magnetic field intensity**; reject “ H cross E ”] OR

D cross B [or electric **displacement** field **cross magnetic field**; reject “ B cross D ”]

[e] In a 2010 paper, Stephen Barnett claimed the two expressions represent kinetic and canonical momenta. The kinetic momentum is the usual definition of momentum as the product of these two quantities. Name both.

ANSWER: **mass** [or **m**] AND

velocity [or **v**]

[m] Since it is the canonical momentum, the Minkowski momentum is obtained from this function. This function’s time integral is the action.

ANSWER: **Lagrangian** [accept **L**]

<Physics, LL>

22. A 1984 act amended in 2012 states that the federal government can withhold eight percent of federal highway construction funds to states that do not set one of these policies at 21 years of age. For 10 points each:

[e] Name this type of policy that all fifty US states have set at 21 years of age since the passage of the 21st Amendment.

ANSWER: minimum **drinking age** [accept minimum **alcohol purchase age** or minimum **alcohol consumption age**]

[h] This Supreme Court case struck down an Oklahoma policy allowing women to purchase beer at age 18 while men could not until age 21. A 7-2 decision in this case stated that differential age requirements on the basis of sex violated the Equal Protection Clause.

ANSWER: **Craig v. Boren** [accept either underlined portion]

[m] *Craig v. Boren* is better remembered because it introduced this level of judicial review that is more rigorous than rational basis review. This level of scrutiny is usually invoked in questions of commercial speech and sex-based discrimination.

ANSWER: **intermediate** scrutiny

<Social Science: Political, TH>