

Penn Bowl 2021: Flenn Bowl

Packet 14 (Finals 1)

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Tossups

1. Discrepancies in this process between folded and unfolded proteins has led to the development of the chain ejection model. Flowing afterglow can cause this process in hydrated helium and argon gas. The Raether limit describes a physical limit in the multiplication factor associated with this process. Molecules can undergo this process when interacting with the heated surface of a Langmuir–Taylor detector. Crystalline molecules such as sinapic acid or DHB are commonly dissolved in water to be used as (*) “matrices” in one technique used for this process. Soft techniques for this process such as MALDI (“MALL-dee”) and ESI cause little fragmentation in analytes. For 10 points, name this important sample preparation step before mass spectrometry that imparts charge to the analyte.

ANSWER: ionization [or ion fragmentation; accept fragmentation until read; accept MALDI or ESI until read; prompt on electron discharge]

<Paul Lee, Chemistry>

2. In the 1200s, this city saw seven books on mystical Christianity, known as the *Flowing Light of Divinity*, written by a native Beguine laywoman. The *Annales Ecclesiastici* of Cesare Baronio was written in response to a church history written in this city by Matthias Flacius, named for its division into thirteen “centuries.” The rights granted to this Hanseatic city by Otto I supplanted those named for Lübeck as the most commonly adopted throughout medieval Europe. Thirty horses were unable to separate two copper (*) hemispheres during a vacuum demonstration by this city’s mayor Otto von Guericke, which served as a symbol of its recovery from an event two decades prior. In this city, Catholic League troops under the Count of Tilly killed 20,000 people in 1631. For 10 points, name this German city that was brutally sacked during the Thirty Years’ War.

ANSWER: Magdeburg [accept Meideborg]

<Tracy Mirkin, European History>

3. On this day, when “the sign of Taurus had run twenty degrees and one,” the rooster Chauntecleer meets the fox in “The Nun’s Priest’s Tale.” Rubens’s *Feast of Venus* depicts a celebration of the Roman festival of Veneralia, which was held on this day. The title character boards the Mississippi steamboat Fidèle on this holiday in Herman Melville’s novel (*) *The Confidence-Man*. In 2021, the SEC investigated Volkswagen of America for possible securities fraud after announcing a name change to “Voltswagen” before this holiday. The BBC told callers to plant sprigs in tomato cans after airing a report on spaghetti trees on this holiday in 1957. For 10 points, name this spring holiday during which pranks are revealed by shouting the holiday’s title.

ANSWER: April Fools’ Day [or April 1; or April First; or the Kalends of Aprilis]

<Nitin Rao, Miscellaneous>

4. **Baby Dionysus had a toy called a “rhombus” or “iunx,” meant to imitate the sounds of these animals. The largest recovered statue from antiquity depicts a woman being killed by one of these animals after Amphion and Zethus wanted to avenge their mother Antiope. Rhyton were drinking vessels often depicting these animals, a white one of which was sent by (*) Poseidon in order for a sacrifice. Venus Caelestis was venerated during the sacrifice of these animals in conjunction with a goddess whose galli priests sacrificed these animals to her. In addition to rams, cults of Magna Mater, or Cybele collected the blood of these animals, which were often depicted being sacrificed by Mithras in tauroctony scenes. Marathon was ravaged by, for 10 points, what kind of animal, which mated with Pasiphae to create the Minotaur?**

ANSWER: **bulls**

<NourEddine Hijazi, Belief>

5. **One member of this profession scorned people who seem to be good as hypocrites for hiding “those deeds the bolder spirit plainly did.” Medora failed to convince that member of this profession to delay his ultimately unsuccessful attack on Pacha Syed, causing her to die of grief. A former member of this profession who craves cheese instead of his diet of oysters and berries yells at another character in an effort to convince others they’re being haunted. Members of this profession receive (*) papers with the words “without are dogs and murderers” when they are deemed unfit for leadership. Robinson Crusoe uses a ship belonging to a group of these people that Lord Byron wrote about in *The Corsair* to finally escape the desert island he was stranded on. For 10 points, Robert Louis Stevenson included characters like Long John Silver in *Treasure Island*, which is set during the “Golden Age” of which profession?**

ANSWER: **pirates** [prompt on **sailors**]

<Margaret Tebbe, British Literature>

6. **The Supreme Court held that people had a “fundamental liberty” interest in this right in the first case heard on it, *Cruzan by Cruzan v. Director*. Chief Justice Rehnquist rejected a Due Process claim against a law banning this right in *Washington v. Glucksberg*. George W. Bush unsuccessfully used the Controlled Substances Act to fight Measure 16, the first US state law affirming this right. Many people wishing to exert this right stay in (*) hotels operated by the Swiss non-profit Dignitas. Jeb Bush intervened against this right in the case surrounding Terri Schiavo (“SHY-vo”). For 10 points, Dr. Jack Kevorkian was convicted for controversially aiding in what practice, the right to voluntarily end your own life.**

ANSWER: right to **die** [or **euthanasia**; or physician-assisted **suicide**]

<Emmett Laurie, American History>

7. **This artist reproduced Raphael’s *Madonna della Seggiola* in several paintings, such as in a portrait’s carpet medallion and in his portrait of *Raphael and La Fornarina*. Kenneth Clark separated a portrait by this artist from its ornate frame, which mirrors its subject’s floral dress. This artist took twelve years to paint that portrait, which duplicates its subject in profile in a mirror’s reflection as she raises her finger to her temple. This artist painted the swollen hands of his subject resting on his knees in his seated 1832 portrait of an elderly (*) royalist. This artist, who painted Madame Moitessier and Monsieur Bertin, depicted his enthroned subject adorned with a golden laurel wreath and satin tunic in his coronation portrait of Napoleon. For 10 points, name this French Neoclassical portraitist, who also painted Orientalist masterpieces like *La Grande Odalisque*.**

ANSWER: Jean-Auguste-Dominique **Ingres** (“ANG-ruh”)

<Aseem Keyal, Painting>

8. A character in this play claims to wear black in “mourning for my life” and hopes her husband will be transferred to another school district to help her forget her unrequited love. The author of this play used a quote from his own story “Neighbors” for a scene in which a character opens the novel *Days and Nights* to the page and lines engraved on a medallion. The “universal soul” prepares for battle with Satan in a (*) play-within-a-play in this play that is received by the writer’s famous mother Arkadina. The aspiring actress Nina sends the message “If you ever need my life, come and take it” to the older writer Trigorin in this play. For 10 points, name this play in which Konstantin Treplyov shoots the title bird, the first of Chekhov’s major plays.

ANSWER: The Seagull

<Margaret Tebbe, European Literature>

9. This city’s artist Mark Bradford has exhibited his huge paintings at one of its museums that also has a giant black dinner table the viewer can walk under. It’s not Houston, but a museum in this city displays Jesús Rafael Soto’s *BBL Bleu Penetrable* (“pay-nay-TRA-blay”), an outdoor interactive grid of dangling blue tubes, and *Levitated Mass*, a large boulder over a walkable channel. The 750-million-dollar renovation of a museum in this city was designed by Peter Zumthor. A museum in this city has a small room for James Ensor’s *Christ’s Entry into Brussels*. At a museum in this city, visitors often take photos next to Chris (*) Burden’s *Urban Light*, a grid of 202 streetlights. Visitors take a tram up to Richard Meier’s stark white travertine complex at a museum in this city owned by the trust of an oil billionaire. For 10 points, the Getty Center is in what Californian city?

ANSWER: Los Angeles [or LA] (The clues refer to The Broad, the LACMA, and the Getty Center.)

<Aseem Keyal, Other Arts>

10. This whole-system state is reinforced by a high Schmidt stability index relative to the strength of surface wind stress. Horizontal isotherms on a time-depth diagram depict this state. Downwelling may create a thermal bar parallel to the shoreline when this whole-ecosystem state is re-established following spring turnover in many temperate water bodies. Limnic eruptions only occur in lakes that are permanently in this state, which are called (*) meromictic. Shallow lakes are seldom found in this state because light can warm their entire water column. Lakes in this state have an oxygen-depleted hypolimnion, a metalimnion, and an epilimnion, which can be disrupted by mixing. For 10 points, name this state in which lakes are separated into layers with unequal density.

ANSWER: thermal stratification [or word forms like stratified]

<Shan Kothari, Other Science>

11. Robert Brulle and Kari Norgaard argue that efforts to address this phenomenon have failed because of cultural trauma avoidance, not social inertia. A study from Dan Kahan’s Cultural Cognition Project found that polarization about this issue is correlated with literacy about it. Simon Lewis and Mark Maslin use the 1610 Orbis spike to mark the beginning of this process. Matto Mildemberger argued against the traditional characterization of this process as a (*) tragedy of the commons, focusing on the role of corporations instead of individuals. The “just transition” movement seeks to minimize the harm done to marginalized communities by false solutions to this process like “cap and trade” systems. For 10 points, name this process that the 2015 Paris Agreement and the Green New Deal seek to mitigate.

ANSWER: climate change [or global warming]

<Margaret Tebbe, Social Science>

12. In a play from this country, a character tells a story in which the insecticide Doom fails to kill the giant cockroaches infesting his room, leading him to get a cat named Blackie. A play from this country is acted by shirtless actors who use minimal props like clown noses to portray characters such as Fidel Castro; in that play, this country's government drops a nuclear bomb in response to Christ's return as "Morena." That play, *Woza Albert!*, was (*) co-written by the two actors who premiered it, much like another play from this country that premiered with John Kani as the photography studio owner Styles. The title character steals a dead man's identity book in a play from this country, *Sizwe Banzi is Dead*. For 10 points, name this home of the author of *Master Harold ...and the Boys*, Athol Fugard.

ANSWER: South Africa

<Jordan Brownstein, World Literature>

13. The difficulty of evaluating future examples of this phenomenon is illustrated with a person deciding whether to become a vampire in L. A. Paul's book on the "Transformative" type of this concept. A French phrase for this concept was rendered as "Women's Life Today" in the zoologist H. M. Parshley's translation of a book whose second volume is titled for this concept. Hans-Georg Gadamer's *Truth and Method* analyzes the different senses of two words for this concept, *Erfahrung* and *Erlebnis*. Following (*) *Facts and Myths*, the second volume of Simone de Beauvoir's *The Second Sex* is titled for a two-word phrase for this phenomenon that has gained widespread use to describe the first-hand reality of members of oppressed groups; that is this concept's "lived" form. For 10 points, empiricists claim that all knowledge comes from what phenomenon?

ANSWER: lived experience [accept other types of experience, like sense experience; accept Erlebnis until read; accept *L'Experience vecue*; prompt on sensation, perception, or observation]

<Jordan Brownstein, Philosophy>

14. A popular overture by Carl Nielsen, his Opus 17, begins with a depiction of one of these events. In a string quartet, the ascending melody "E-natural, F, [pause] A, B-flat, A, B-flat, D, F," played over a long B-flat-major chord, is nicknamed for one of these events. In a ballet, two flutes play soft, quick 12-tuplets at the start of a movement depicting one of these events, which is grouped with a "Pantomime" and "Danse Generale" in the second (*) *Daphnis et Chloé* suite. A B-flat-major Haydn quartet in his Opus 76 is titled for one of these events. The first *Peer Gynt* suite opens with a movement depicting one of these events. The ascending trumpet notes "C, G, C" begin the introduction depicting one of these events in *Also sprach Zarathustra*. For 10 points, name this event depicted in Grieg's "Morning Mood."

ANSWER: a sunrise [or synonyms like daybreak; accept "Lever du jour"; prompt on "Morning Mood" until read]

<Michael Yue, Music>

15. Barbara Peckarsky has documented how stoneflies involved in this kind of activity have behavioral effects on mayflies. Peacor and Werner showed that dragonflies performing this kind of activity cause trait-mediated indirect effects. Holling's functional responses can model how factors like handling time change the rate of this activity. Landscapes of (*) fear arise from perceived spatial variation in this activity, which regulates top-down trophic cascades. The periodic population fluctuations sometimes caused by this kind of interaction are often compared to the stable limit cycles in its Lotka–Volterra model. A classic example of these interactions occurs on Isle Royale between wolves and moose. For 10 points, name this kind of ecological interaction in which one organism eats another.

ANSWER: predation [or predator–prey interactions; prompt on consumption or consumer–resource interactions; prompt on foraging; anti-prompt on hunting by asking "what more general ecological interaction is hunting an example of?"]

<Shan Kothari, Biology>

16. *Description acceptable.* **Other than measuring winds, this was the primary purpose of an octagonal tower built by Andronicus of Cyrrhus. Castle-shaped and elephant-shaped devices with this primary function are described in *The Book of Knowledge of Ingenious Devices* by Al-Jazari. Monastery bells inspired a device that performs this task, which supplanted the steam engine as the true herald of the Industrial Revolution, according to (*) Lewis Mumford. The *style* of one device must be parallel to Earth's axis of rotation to accurately perform this practice continuously. The Greek *clepsydra* uses water to accomplish this task, which is also done with a two-component instrument that consists of a flat plate and a shadow-producing *gnomon*. For 10 points, name this function performed by a sundial.**

ANSWER: timekeeping [accept descriptive answers that indicate the measurement of time, or specific units of time; prompt on determining the position of the Sun; prompt on dispensing/releasing water]

<Tracy Mirkin, Other History>

17. **This figure is associated with a legendary figure who “controls the East and the West” that Muhammad is asked about in a series of three questions posed to him by rabbis; that story may have been influenced by this figure asking a series of ten questions to Simon HaTzaddik (“ha-tsa-DEEK”) before ordering an attack on Samaritans who wanted to destroy the Temple of Jerusalem. The first goat horn in Daniel 8 likely represents this man, who, in the Quran, is identified with a man who builds a wall to separate man from (*) Gog and Magog. A Temple of Diana burned down on the day of his birth according to a “Life” of him by Plutarch paired with the life of Julius Caesar. This figure requested to be called a son of Zeus Ammon and his tomb was built in the kingdom of Ptolemy I, one of his successors. For 10 points, identify this subject of an Egyptian cult, a Macedonian general.**

ANSWER: Alexander the Great [or Alexander III, or Alexander Makdon; accept Dhu al-Qarnayn or “he of two horns” until read]

<NourEddine Hijazi, Belief>

18. **In the perfectly conducting limit, the time derivative of this quantity is zero as a consequence of the electric field being equal to the negative cross product of the bulk fluid velocity and the magnetic field. The magnetic moment of a gyrating particle, the longitudinal invariant, and this quantity are adiabatic invariants of plasmas. Along with the conservation of mass, energy, and momentum, ideal MHD assumes that the time derivative of this quantity is zero, which follows from the (*) frozen-in condition. In superconductors, this quantity is quantized in units of h over $2e$. The line integral of the vector potential over a closed loop is this quantity, thus the vector potential's units are Webers per meter. Faraday's law relates the emf to changes in this quantity. For 10 points, what quantity is the amount of magnetic field passing through a surface?**

ANSWER: magnetic flux [prompt on phi]

<Jonathen Settle, Physics>

19. **In a story by this author, the neurotic cross country runner Kyle prevents the kidnapping of his bubbly neighbor Alison by bashing the abductor with a geode. In another story by this author, a mother refuses to buy a dog from a family after seeing their mentally handicapped son chained up in the backyard. In a two-page story, this author described a father whose “only concession to glee” is dressing up a metal pole for various holidays. This author's most recent book closely examines seven short stories by (*) Turgenev, Gogol, Tolstoy, and Chekhov. This author included the stories “Victory Lap” and “Sticks” in his 2013 collection *Tenth of December*. This author's only novel focuses on a grieving politician who tries to embrace his dead son Willie while in a Tibetan purgatory. For 10 points, name this author of *A Swim in a Pond in the Rain* and *Lincoln in the Bardo*.**

ANSWER: George Saunders (The story in the second sentence is “Puppy.”)

<Taylor Harvey, American Literature>

20. These people practice a martial art whose name either refers to the ant-like shape of its performers or its ant-like strength-building nature, **Kollelaullin** (“ko-yay-yow-YEEN”). Feigned retreats were a favored tactic of **Lientur**, a leader of these people who led many *malón* cattle raids. These people appointed a temporary leader called a *toqui* (“TOH-kee”) who ruled for the duration of a given war. **Julio Argentino Roca** led the (*) Conquest of the Desert, a forcible displacement of these people. All Spanish settlements south of the Bio-Bio River were attacked during these people’s Destruction of the Seven Cities. Araucania, these people’s homeland, was the site of a war where they were led by **Lautaro** and killed **Pedro de Valdivia**. For 10 points, name these indigenous Chileans who fought off the Spanish.

ANSWER: **Mapuche**

<Emmett Laurie, World History>

Bonuses

1. This model was proposed in part to explain Hans Driesch's observation that dividing sea urchin embryos at the two-cell stage resulted in two smaller sea urchins. For 10 points each:

[10h] Name this conceptual model proposed by Lewis Wolpert to explain how cells obtain positional information from morphogen gradients.

ANSWER: **French flag** model [or **French flag** problem]

[10m] In *Drosophila*, cytonemes help create gradients of morphogens, such as this protein whose release by posterior compartment cells causes anterior cells to express Wingless or Decapentaplegic. Mammals have Indian and Desert orthologs of this protein.

ANSWER: **Hedgehog** [or **Hh**]

[10e] In mammals, the morphogen retinoic acid helps regulate Hox genes that pattern the rhombencephalon ("rom-ben-SEFF-uh-lon"), which is the hind part of this organ. David Van Essen proposed that mechanical tension shapes the folds in this organ's cerebral cortex.

ANSWER: **brain**

<Talia Coopersmith and Deniz Gedik, Biology>

2. In a novel, a man is constantly cheated out of his wealth by his valet Zakhar but does not mind because he is doing this activity. For 10 points each:

[10m] Name this activity that makes up the majority of Oblomov's life in his namesake novel. Although his childhood friend Stoltz rouses him from his bed to travel, Oblomov is able to happily die while doing this activity at the end of the novel.

ANSWER: **sleeping** [or equivalents; prompt on staying in his room or dreaming]

[10e] Ivan Goncharov sought to make *Oblomov* the complete essence of this kind of 19th-century Russian archetype. Ivan Turgenev wrote a "Diary of" this kind of person.

ANSWER: **superfluous man**

[10h] After *Oblomov*'s publication in *Otechestvennye zapiski* ("uh-TAY-chist-ven-yeh za-PISS-kee"), Nikolai Dobrolyov wrote a pamphlet on "Oblomovism" in this journal that also published Nikolai Chernyshevsky's "What Is To Be Done?"

ANSWER: **Sovremennik** [accept *The Contemporary*]

<Alex Moon, European Literature>

3. This meteor shower is created by debris from Comet Swift-Tuttle, whose perihelion is near Earth. For 10 points each:

[10m] Name this meteor shower that peaks in mid-August and is best viewed in the Northern Hemisphere. This meteor shower has peaks of up to 100 meteors per hour and is the most visible meteor shower in most years.

ANSWER: **Perseid** meteor shower [or **Perseids**; do not accept or prompt on "Perseus"]

[10h] The Perseids have that name because this property of the meteor shower is in the constellation Perseus. This is the point from which meteors in a shower appear to originate.

ANSWER: apparent **radiant**

[10e] The Leonid meteor shower allowed the discovery of the sodium tail that trails this celestial body. This body's many maria include the Sea of Tranquility.

ANSWER: the Earth's **Moon**

<Sam Charney, Other Science>

4. Richard Taruskin was critical of the style of musical performance denoted by this three-word term, claiming that attempting to recreate past practices is an inherently modern goal susceptible to modern biases. For 10 points each:
[10h] Name this three-word term for a style of musical performance adhered to by Trevor Pinnock and Christopher Hogwood that uses supposedly period-accurate instruments and mannerisms to perform Baroque-era music.

ANSWER: **historically informed performances** [prompt on **HIP**]

[10e] Trevor Pinnock and Christopher Hogwood often lead their ensembles while playing on this Baroque keyboard instrument, whose strings are plucked rather than hit with a hammer like in the modern piano.

ANSWER: **harpsichord** [or **clavecin** or **clavicembalo**]

[10m] Sir John Eliot Gardiner, one of the biggest proponents of HIP, leads a choir named for this composer. That choir was initially formed to perform this composer's 1610 *Vespers for the Blessed Virgin*.

ANSWER: Claudio **Monteverdi** [or Claudio Giovanni Antonio **Monteverdi**; accept the **Monteverdi** Choir]
<Michael Yue, Music>

5. Two philosophers of this ethnicity have debated whether terms like “onipa hun” for “useless” people imply belief in different degrees of personhood. For 10 points each:

[10h] Name this ethnicity of the authors of *Tradition and Modernity* and *Cultural Universals and Particulars*. This was also the ethnicity of the 18th-century philosopher Anton Wilhelm Amo.

ANSWER: **Akan** (“uh-KON”) [or **Ashanti**; or **Asante**; or **Fante**; or **Nzema**; prompt on **Ghanaian**]

[10e] Another point in Kwasi Wiredu and Kwame Gyekye's (“JAY-chay's”) dispute over Akan thought is whether the term *okra* can accurately be translated as this concept. This immaterial essence of a person is the subject of Aristotle's *De Anima*.

ANSWER: the **soul**

[10m] A volume edited by Wiredu and Gyekye is titled for “Person” and this social unit. Michael Sandel champions an ethical position named for this social unit that opposes Rawlsian liberalism.

ANSWER: the **community** [or word forms like **communitarianism**]

<Jordan Brownstein, Philosophy>

6. An oval cloud with several cherubs is depicted in a Jan Gossaert painting, which depicts a saint performing this action with the help of an angel with multicolored wings. For 10 points each:

[10h] Name this action. Rogier van der Weyden borrowed a motif of two people peering over a wall from Jan van Eyck's *Madonna of Chancellor Rolin* for a painting depicting St. Luke doing this action for a breastfeeding subject.

ANSWER: **drawing** the **Virgin** [or **drawing Mary**; accept **painting** in place of “drawing”; or *Saint Luke **Drawing the Virgin***; prompt on **drawing** or **painting** by asking “who is the subject being illustrated?”]

[10e] Flemish examples of these organizations for artists were often named for St. Luke and commissioned paintings depicting him. Women were often denied access to those examples of these groups that organized artists.

ANSWER: **guilds**

[10m] The Leuven archer's guild commissioned this T-shaped painting by van der Weyden, who included tiny crossbow-like spandrels in the painting. In this painting, the pose of the swooning Mary mirrors the body of Christ.

ANSWER: *The **Descent from the Cross*** [or *The **Deposition** of Christ*]

<Aseem Keyal, Painting>

7. The plans of Cornelis Lely were instrumental in accomplishing this monumental task, which was partially motivated by events in 1287 and 1421 named for Saints Lucia and Elizabeth that together killed nearly 100,000 people. For 10 points each:

[10h] Name this project that began in 1919 by dredging and depositing large quantities of till to connect Wieringen to the mainland, thus forming IJsselmeer (“ICE-ull-MAIR”). It was indefinitely postponed in 1986.

ANSWER: the damming of the **Zuiderzee** (“ZOW-dur-ZAY”) [accept the construction of the **Zuiderzee** Works, the reclamation of land from the **Zuiderzee**, or anything that mentions **Zuiderzee**; accept **Zuiderzeewerken**; prompt on land reclamation, reclaiming land, or similar answers; prompt on building dikes, dams, sluices, locks, and levees; prompt on creating polders]

[10m] Just as land can be reclaimed, it can be forfeited too. The Turkish exclave of Ada Kaleh, a small Romanian island, was completely submerged in 1970 following the construction of a dam spanning this gorge on the Danube.

ANSWER: the **Iron Gates** [accept **Portile de Fier**; accept **Đerdapska klisura**; accept **Železné vráta**; accept **Demir-kapija**; accept **Vaskapu**; accept other legitimate original language terms]

[10e] A less-intentional example of manmade flooding occurred in this country, when a landslide into the reservoir of the Vajont (“va-YONT”) Dam caused the disastrous flooding of Longarone, a town just north of Venice.

ANSWER: **Italy** [or **Italia**; accept the **Italian** Republic; accept **Repubblica Italiana**]

<Tracy Mirkin, European History>

8. This event motivates the action of Tom Piazza’s novel *City of Refuge* and Dave Egger’s nonfiction book *Zeitoun*. For 10 points each:

[10h] Name this event endured by Esch and her family in a 2011 novel featuring a search for the pitbull China.

ANSWER: Hurricane **Katrina** [prompt on a hurricane or storm]

[10m] Hurricane Katrina provides the backdrop for *Salvage the Bones*, a novel by this author. This author won the 2017 National Book Award for her novel *Sing, Unburied, Sing*.

ANSWER: Jesmyn **Ward**

[10e] Ward edited an anthology of essays and poems called *The Fire This Time*, a nod to this other author’s *The Fire Next Time*. He set many of his works in Paris, including *Giovanni’s Room*.

ANSWER: James **Baldwin**

<Alex Moon, American Literature>

9. In 1592, Edward Coke represented Elizabeth I against Dame Joan Young in a landmark case regarding the Queen’s right to take possession of these animals throughout England. For 10 points each:

[10h] Name these animals, for which a profession existed solely to mark and record wild ones in a process known as “upping.” At a 1306 feast named for these animals, Edward I knighted his son, who knighted 266 other men in turn.

ANSWER: **swans** [accept *The Case of the Swans*; accept The Feast of the **Swans**; accept **swan** upping; prompt on birds]

[10e] The earlier Edward the Confessor was an avid participant in this avian activity, performing it each day after Mass. Leather gloves and a hood are typically used in this act of hunting small animals with trained birds of prey.

ANSWER: **falconry**

[10m] The Flemish poem *The Vows of the Heron* explains the Hundred Years’ War as being caused by Edward III being called a coward by a ruler of Artois with this name. This is the name of William the Conqueror’s eldest son, known as *Curthose* (“CURT-hose”) for his “short-stockings.”

ANSWER: **Robert** [accept **Robert** III of Artois; accept **Robert** Curthose or **Robert** II of Normandy]

<Tracy Mirkin, Other History>

10. Answer the following about English actress Diana Rigg, for 10 points each.

[10e] Diana Rigg played the iconic '60s spy Emma Peel in her first breakout television role on this show. In a 2012 film of the same name, Iron Man and his title superhero team fight to recapture the Tesseract.

ANSWER: The Avengers

[10m] Rigg played Contessa Tracy di Vincenzo in *On Her Majesty's Secret Service*, marrying James Bond at the end of the film just before dying in an ambush led by Ernst Stavro Blofeld, the head of this global criminal organization.

ANSWER: SPECTRE [or Special Executive for Counter-intelligence, Terrorism, Revenge and Extortion]

[10h] Rigg appeared in *Game of Thrones* as this powerful matriarch of the great house that rules the Reach, nicknamed "the Queen of Thorns."

ANSWER: Olenna Tyrell [or Olenna Redwyne; prompt on Tyrell; prompt on Redwyne]

<Nitin Rao, Miscellaneous>

11. A hadith narrated by this man relates how Muhammad instructed a man to believe in Allah and Muhammad, participate in jihad, and go on Hajj after that man repeatedly asked "What is the best deed?" For 10 points each:

[10h] Name this cat-loving companion of Muhammad who, despite converting to Islam four years before Muhammad died, supposedly wrote over 5000 hadiths.

ANSWER: Abu Hurairah [or Abd al-Rahman ibn Sakhr Ad-Dausi]

[10m] Abu Hurairah's hadiths are mostly collected in the *Ṣaḥīḥ al-Bukhārī*, which is among a collection of this number of books of hadith. Along with the 5 pillars, there are this many articles of faith in Islam.

ANSWER: six

[10e] Later in life, Abu Hurairah was appointed governor of this city, the second-holiest city in Islam after Mecca. The ansar were people in this city who received Muhammad following the Hijrah.

ANSWER: Medina

<NourEddine Hijazi, Belief>

12. Carrier scattering in semiconductor devices occurs when carriers collide with impurities, defects, other carriers, and these particles. For 10 points each:

[10e] Name these quasiparticles that represent lattice vibrations.

ANSWER: phonons

[10h] *Two answers required.* These two scientists introduced acoustic deformation potentials to analyze the scattering of electrons and phonons in non-polar semiconductors. These two scientists and Walter Brattain had a toxic, but productive, relationship at Bell Labs for a couple years in the 1940s.

ANSWER: John Bardeen AND William Shockley

[10m] By applying Fermi's golden rule to states with different values of this quantity, the electron-phonon scattering rate can be computed. The magnitude of this quantity is momentum over \hbar .

ANSWER: wavevector [accept wavenumber]

<Jonathen Settle, Physics>

13. A story originally from this language, in which three princes from Serendip explain to King Bahram how they deduced the appearance of a lost camel, inspired Horace Walpole to coin the term “serendipity.” For 10 points each: [10e] Name this language of many works featuring King Bahram, including the epic *Shahnameh*.

ANSWER: **Persian** language [or **Farsi**]

[10h] The “Three Princes of Serendip” tale was originally added to a long poem by this author in which Bahram houses his seven brides in seven planet-themed palaces. That poem is part of his *Khamsa*, along with the tale of *Layla and Majnun*.

ANSWER: **Nizami** Ganjavi

[10m] A poem credited to this author describes how the wild ass stamps over the head of King Bahram, but “cannot break his sleep.” This poet wrote of a “Moving Finger that writes; and, having writ, moves on.”

ANSWER: **Omar Khayyam** [accept either underlined name; prompt on Edward **Fitzgerald** by asking “whose work was he translating?”]

<Jordan Brownstein, World Literature>

14. This bonus is not going to be ideal. Answer the following about deviations from ideal behavior in chemistry, for 10 points each.

[10m] This quantity for a real gas is equal to the pressure of an ideal gas with an identical temperature and free energy. This quantity describes the tendency of a material to leave a phase.

ANSWER: **fugacity**

[10e] Fugacities may be predicted from this non-ideal gas equation. This equation introduces parameters a and b to account for interparticle interactions and particle volume.

ANSWER: **van der Waals** equation

[10h] The activity coefficient, which is 1 for ideal substances, can be calculated using this equation. This equation should be applied at lower ionic strengths than the Pitzer equations.

ANSWER: **Debye-Hückel** equation [accept **Debye-Hückel** theory/limiting law]

<Sam Botterbusch, Chemistry>

15. David Douglass and Lewis Hallam led an organization that moved to Jamaica due to this policy, but returned to an institution on John Street after it was lifted. For 10 points each:

[10h] Name this policy articulated by Article Eight of the Articles of Association. This policy faded as men like Royall Tyler became popular.

ANSWER: **ban** on the **theatre** [accept **plays** for **theatres**]

[10e] The Continental Army ignored the policy while staying in this place during the winter of 1777 to 1778. Baron von Steuben (“SHTOY-bin”) drilled the Army while they were there.

ANSWER: **Valley Forge**

[10m] The theatre ban was opposed by James Rivington in a pamphlet named for a man and his neighbors both described by this adjective. *The Way to Wealth* was published as a compilation of advice from a publication whose titular pseudonymous author is described by this adjective.

ANSWER: **poor** [accept *The **Poor** Man’s Advice to His **Poor** Neighbors*; accept ***Poor** Richard’s Almanac*]

<Emmett Laurie, American History>

16. The Welsh Triad identifies three women with this name, the second of which was slapped by her sister in the second of the “Harmful Blows of the Island of Britain.” For 10 points each:

[10h] Give this name shared by a woman who is kidnapped by her former lover Urien after she breaks her engagement with him to be with her husband who defeats Urien in battle four times.

ANSWER: **Guinevere**

[10e] The Welsh Triad claims that this king was married to three different women named Guinevere. The more famous narrative about him involves one wife named Guinevere who has an affair with Lancelot.

ANSWER: King **Arthur**

[10m] Chrétien de Troyes’s (“crate-YANN duh TWAH’s”) narrative about Lancelot gives him an epithet referencing one of these objects after he grudgingly accepts a dwarf’s services with it despite the ridicule it brings him.

ANSWER: **carrots**

<NourEddine Hijazi, Belief>

17. Answer the following about films featuring puppets, for 10 points each.

[10m] In this film directed by Spike Jonze, a depressed puppeteer played by John Cusack discovers a way to inhabit the body of the title actor by entering a tiny door between the 7th and 8th floor of an office building.

ANSWER: **Being John Malkovich**

[10e] A director from this country, Lotte Reiniger, pioneered the shadow puppet-like silhouette animation style with her film *The Adventures of Prince Achmed*. Though they later worked in Hollywood, Fritz Lang and Ernst Lubitsch were born in this country.

ANSWER: **Germany**

[10h] This director adapted the memoirs of his countrymen Li Tian-lu into his film *The Puppetmaster*, part of his Taiwanese History trilogy along with *A City of Sadness* and *Good Men, Good Women*. This leading director of the Taiwanese New Wave’s most recent work is the 2015 *wuxia* film *The Assassin*.

ANSWER: **Hou** Hsiao-hsien (“ho shao-shen”)

<Taylor Harvey, Other Arts>

18. In the Iliad, Homer describes the shield of Achilles by using this rhetorical device. For 10 points each:

[10m] Name this rhetorical device in which an artist attempts to capture the essence of a work of art created in one medium through another medium.

ANSWER: **ekphrasis**

[10e] One example of ekphrastic poetry, which often focuses on describing works of visual art, is this Keats poem that contains the line “Beauty is truth, truth beauty.”

ANSWER: **“Ode on a Grecian Urn”**

[10h] Another example of ekphrastic poetry is this poet’s “Before the Mirror,” which describes James Whistler’s *Symphony in White, No. 2*. This man is also the author of “Sapphics.”

ANSWER: Algernon Charles **Swinburne**

<Margaret Tebbe, British Literature>

19. A Lev Vygotsky paper about this activity argued that it makes its participant a “head taller” and “above his daily behaviour.” For 10 points each:

[10h] Margaret Lowenfeld’s “World Technique” pioneered the therapeutic use of what activity? Donald Winnicott described his technique of encouraging this activity with “squiggles” and “spatulas” in a book titled for this activity “and Reality.”

ANSWER: **play** [or **playing**; accept role **play** or **make-believe**; prompt on **games**]

[10e] This psychologist asked children to teach him how to play marbles in order to analyze moral development. He argued play follows “motor rules” in the sensorimotor stage, the first of his four stages of cognitive development.

ANSWER: Jean **Piaget**

[10m] To argue for the importance of play, Alison Gopnik’s *The Gardener and the Carpenter* cites an experiment in which rats deprived of play demonstrated lower levels of this phenomenon, the ability of the brain to “rewire” itself.

ANSWER: **plasticity** [or neuro**plasticity**]

<JinAh Kim, Social Science>

20. These people’s first recorded interaction with outsiders are with the Macassans, who went on trepanging (“treh-PANG-ing”) expeditions to their country’s coast. For 10 points each:

[10m] Name these people, whose Yolngu (“YOLE-ngoo”) subgroup recorded such interaction in rock art. These people’s “X-ray” rock art technique can be seen at Ubirr in Kakadu National Park.

ANSWER: **Aboriginal Australians** [accept **aborigines**]

[10h] Evidence of Yolngu–Macassan interaction comes from an apparent loanword for this substance, which the Macassans brought. Suharto promoted the *kretek*, made primarily from this substance and cloves, as an anti-imperialist symbol.

ANSWER: **tobacco**

[10e] Conflicting theories assert the Macassan pipes were more likely to be used for smoking this substance. China and Britain fought two wars over this narcotic in the 19th century.

ANSWER: **opium**

<Emmett Laurie, World History>