

Harvard Fall Tournament XI

Edited by Raynor Kuang and Robert Chu

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And with thanks to Harvard College, MIT Quiz Bowl, and various playtesters



Round 4

Tossups

1. **The author wrote a commentary “Model Book” titled after this character, and Helene Weigel originally performed this role. This character states, “I must get back into business” at the end of the play, and she hears the prostitute Yvette sing the (*) “Song of Fraternization.”** This character’s mute daughter is killed after playing a drum to warn of a Catholic sneak attack. This character’s true name is Anna Fierling, and her children Eilif, Katrin, and Swiss Cheese all die while she’s operating a canteen wagon over the course of the Thirty Years War. For 10 points, name this character who, with “Her Children,” titles a Bertolt Brecht play.

ANSWER: **Mother Courage** (prompt on partial; accept *Mother Courage and Her Children*; accept either or both underline parts of **Anna Fierling** before read)

2. **One man who held this U.S. office was sworn in in Cuba, where he died six weeks later, and may have been James Buchanan’s lover. The only two men to hold this office during the Madison administration both died in office. (*)** John C. Breckinridge was followed in this office by Hannibal Hamlin. While in this office, one man wrote the South Carolina Exposition and Protest, outlining his doctrine of nullification. This position, the highest held by John C. Calhoun, casts the tie-breaking vote in the Senate. For 10 points, name this national office which was first held by John Adams.

ANSWER: **Vice President** of the United States [the first clue refers to William King] (accept **VP** in place of Vice President)

3. **A technique currently popular in this type of art is the Brenizer method, which helps extend the range of equipment like one nicknamed the “nifty fifty.” Miniature-looking works in this genre can be created using special “tilt-shift” devices. The technique of (*) “crushing the blacks” helps impart a vintage style to this artform and is heavily used in products sold by companies like VSCO [“visco”].** This artform possesses a “Rule of Thirds,” and it’s complemented by programs like Adobe Lightroom. ISO, aperture, and shutter speed make up its “exposure triangle.” For 10 points, name this field of visual art created with a lens and a camera.

ANSWER: **photography** (or **photographs**; accept **film** since the techniques are similar)

4. **Lucas’s theorem reduces one of these numbers to a product of them modulo p . Products of these numbers can be summed using Vandermonde’s convolution, and a sum of them can be simplified with the hockey-stick identity. If the row index is fixed, they sum to (*) “2 to the n ,” and they’re given by the formula [read underlined part slowly] “ n factorial over k factorial times $(n$ minus k) factorial.”** The namesake theorem of these numbers describes their generation by expanding “one plus x ” to the n , and they make up Pascal’s Triangle. For 10 points, name these “coefficients” that describe the number of ways to choose k things from n possibilities, or n choose k .

ANSWER: **binomial** coefficients (prompt on descriptive answers like “ n choose k ” or “members of Pascal’s triangle” or “number of combinations”)

5. **This figure destroyed the troops of Ahaziah after threatening that Ahaziah's parents would be consumed by dogs. This figure's final Old Testament appearance is in the Book of Malachi, which prophesizes his return as a sign of the judgment day. After being shown 100 loyal disciples by Obadiah, this man engaged in a contest at (*) Mount Carmel against Ahab and disciples of Baal, which this prophet won when Yahweh sent down fire to consume his altar. This figure literally passed his mantle to his successor Elisha. For 10 points, name this Biblical prophet who was lifted up to heaven in a chariot of fire.**

ANSWER: Elijah (or Elias; do not accept or prompt on "Elisha")

6. **One monarch from this family ordered the beheading of the brother of his mistress Anna Mons, after which the head was placed on display at his nation's first museum, the Kunstkamera. This house eventually merged with that of Holstein-Gottorp, and its first monarch was living in a (*) monastery when he was elected by the zemsky sobor. Anna Anderson claimed to be a lost member of this house. The Time of Troubles ended after its first monarch Michael ascended to the throne, and it succeeded the Rurik dynasty. For 10 points, name this dynasty of czars like Peter the Great, which ruled Russia from the 17th to the 20th centuries.**

ANSWER: Romanov

7. **Description acceptable. In his namesake "tip," John Herivel made a notable contribution to this effort by accounting for the laziness of certain enemy workers. An earlier attempt to perform this action used a "characteristics" method invented by Marian Rejewski, but his work was undone with the addition of two more (*) rotors. This effort was codenamed Ultra, and it used machines like the Bombe in its central location in Bletchley Park. Alan Turing contributed to the success of this effort, which allowed the movement of U-boats to be predicted ahead of time. For 10 points, describe this effort to solve an "unbreakable" German war code.**

ANSWER: cracking the Enigma code (accept synonyms for cracking like solve or break; accept Ultra before mention; prompt on codebreaking or cryptograpy)

8. **This tissue is the location of the sinusoidal macrophages in the reticulo-endo-thelial system. To complete the last stage in their development, immature B-cells migrate to this organ's follicular region and undergo T1 and T2 steps. The (*) marginal zone divides the two main tissues making up this organ, and it contains more than half of the body's monocytes. Sequestration of this organ is a common side effect of sickle-cell anemia in younger children, and it's made up of red and white pulp. For 10 points, name this organ in the lymphatic system located in the upper left of the abdomen and responsible for the removal of old red blood cells and platelets.**

ANSWER: spleen (*Ed's note: my spleen!*)

9. **One ruler of this empire allowed anyone to meet with him by ringing bells on the "chain of justice." The general Hemu was a noted enemy of this empire since he was loyal to the Suri dynasty which interrupted its rule. One leader of this empire built the House of Worship and created the religion (*) Din-i Ilahi, and it was founded after the defeat of Ibrahim Lodi at Panipat. One of its rulers was so affected by his wife's death he built her a mausoleum in Agra known as the Taj Mahal. For 10 points, name this Indian empire ruled by Shah Jahan and Akbar the Great, the last before British rule began in 1857.**

ANSWER: Mughal Empire

10. The Vichy government commissioned a work of this type from Maurice Duruflé. Tomás Luis de Victoria's most famous work is often called one of these compositions, though it includes additional sections such as the *Libera me*. That section was included along with an unusual excerpting of the *Pie Jesu* ["pee-ay yay-zu"] in (*) Gabriel Fauré's work of this kind. Johannes Brahms adapted text from the Luther Bible for a *German* one of these works, and a famous *Lacrimosa* was included in one of these works. Franz Süssmayer completed Mozart's unfinished work in this genre. For 10 points, name these choral works commemorating the dead.

ANSWER: requiems (prompt on any of "masses" or "masses for the dead" or "Officium Defunctorum" before end of question)

11. In one song by this group, the singer is cautioned that "the man in a gabardine suit was a spy" while travelling on a bus searching for the title entity. Songs by this group behind "America" include one with a chorus with the repeated sounds "lie-la-lie" [pronounced like the words], and one which asks "Where have you gone, (*) Joe Dimaggio?" This group described "People talking without speaking" in one song, and they recorded "The Boxer." This group's soundtrack for *The Graduate* includes their song "Mrs. Robinson." Their most famous song begins "Hello darkness, my old friend." For 10 points, name this duo who sang "The Sound of Silence."

ANSWER: Simon & Garfunkel (accept Paul Simon and Art Garfunkel)

12. This value can be displayed graphically using a quadric named for Cauchy, and the 'diagonal' values of this quantity's matrix form simplify to the pressure gradient in incompressible liquids. When a force is applied to an object, the normal form of this quantity occurs perpendicular to the object's cross-section, in contrast to this quantity's (*) shear form. This quantity is usually plotted on the y -axis of a curve that is straight for elastic materials due to Hooke's Law. The tensile form of this quantity appears as the numerator in Young's modulus. Pressure is a specific type of, for 10 points, what measure of the force per area, usually contrasted with strain?

ANSWER: stress (accept stress vector; accept specific kinds of stress like shear stress or tensile stress)

13. Erskine Childers's book *The Riddle of the Sands* established the modern form of a genre named for this profession. The Karla Trilogy centered on a member of this profession named George Smiley, and James Wormold lies about sketches of (*) vacuum parts while working this profession in a Havana-set novel written by Graham Greene. John le Carré wrote novels titled after these people with a "Tinker Tailor [and] Soldier" and "[Coming] In From the Cold." The most famous member of this profession appeared in the books *Casino Royale* and *Goldfinger*. For 10 points, give this profession of Ian Fleming creation James Bond.

ANSWER: spy (accept synonyms like intelligence officer or secret agent or espionage agent; prompt on things like government agent)

14. One boy with this surname notes that another character with the same surname has "hardly any behind" before pinching her on the butt. One character with this surname is criticized for working in Hollywood as a screenwriter, and another used (*) green ink to write poems on his baseball glove. One character with this surname rides a carousel while being watched by her brother, who starts the novel by getting expelled from Pencey Prep and railing against "phonies." For 10 points, give this surname of Allie, D.B., Phoebe, and Holden in J.D. Salinger's *The Catcher in the Rye*.

ANSWER: Caulfield (accept Allie, Phoebe, D.B., or Holden Caulfield)

15. **A law named for Ostwald simplifies a fraction with values for this quantity in the numerator and denominator. This quantity times extinction coefficient times optical path length gives absorbance in Beer's Law, and the Van't Hoff factor times R T times this quantity gives (*) osmotic pressure.** By the law of mass action, the chemical equilibrium constant of a reaction is given by taking the ratio of this value for the products and reactants raised to their coefficients. This value is represented in square brackets, and it's contrasted with a similar value that uses a lowercase *m*. For 10 points, name this standard measure of concentration given in moles per liter. ANSWER: **molarity** (prompt on "capital M"; accept word forms, but do *not* accept or prompt on just "moles"; prompt on concentration before it's read)

16. **This action was performed after a failure to bring horses to a wedding to Hippodamia, and it required a visit to the Hesperides to receive a magic sack. King Polydectes requested this action, and its completion directly led to the birth of (*) Pegasus.** Danae's son stole an eye from the Graiae while completing this action and then rescued Andromeda from a sea monster on the way back from it. This action was completed with the use of winged sandals as well as a mirrored shield that allowed its user to avoid looking at a Gorgon. For 10 points, name this action achieved by Perseus after he slew a monster whose gaze turned people to stone. ANSWER: **killing the Medusa** (accept any reasonable equivalent)

17. **A member of Code Pink unfurled a banner at this event. This event was split into three parts labeled with a common phrase and the words "Safe," "Work," and "First." An attempt to introduce a "conscience clause" during it was overridden by Steve Womack, and Peter (*) Thiel spoke at this event.** The phrase "your word is your bond" was plagiarized in a speech at this event, and Reince Priebus chairs the group that organized this event that took place in Cleveland. At this event, Ted Cruz notably failed to endorse its central figure. For 10 points, name this 2016 event in which delegates for a US political party formally nominated Donald Trump for president. ANSWER: 2016 **Republican National Convention** in Cleveland (or **RNC**; accept **#RNCinCLE**; prompt on just national convention)

18. **Description acceptable. These characters are fond of "quiting" [rhymes with "fighting"] each other, such as when one mentions how his rival shares a profession with a jerk named Symkyn. One of these characters is told his efforts are "not worth a turd," and is a representation of the (*) author himself.** Jankyn is the most recent of the five husbands of one of these people. These people meet at the Tabard Inn, where the Host offers to judge a storytelling contest between them. For 10 points, name these people such as the Reeve, Miller, and Wife of Bath, who travel to Canterbury in a collection by Geoffrey Chaucer. ANSWER: the **pilgrims** from *The Canterbury Tales* (accept lenient equivalents for pilgrims like **travellers**; accept **storytellers** and equivalents; prompt on things like "the characters in *The Canterbury Tales*;" reverse-prompt [ask for less specific] on specific pilgrims; accept The **Miller** and the **Reeve** together before "not worth a turd")

19. **A central object in this painting is mirrored in the seams on a man's shirt and the potted mother-in-law's tongue plant in the background. A woman in this painting wears a "Persephone" cameo brooch, and it won a third-place \$300 prize from the (*) Art Institute of Chicago, where it is housed today.** A window with a pointed arch appears on a house in this painting that was inspired by the Dibble House in Eldon, Iowa. A depiction of the artist's sister stands next to a man modeled on the dentist Byron McKeeby, who holds a pitchfork in his right hand. For 10 points, name this depiction of a farmer and either his wife or sister, a painting by Grant Wood. ANSWER: ***American Gothic***

20. **The main region of the brain dealing with this ability is located in Brodmann areas 41 and 42. The volley theory is an extension to one theory of this ability that itself superseded Hermann Helmholtz's place theory of it. The superior temporal gyrus in the temporal lobe processes this ability, and the (*) cocktail party effect describes selectively applying your attention and this ability. The basilar membrane and tiny hairs inside of it process both balance and this sense, and a cochlear implant can be used if this sense is damaged. The primary organ for this sense contains an inner canal. For 10 points, name this sense that processes external sound.**

ANSWER: **hearing** (accept word forms; accept **auditory** sense and other obvious synonyms)

21. **A proof of this law writes an area differential as v times the cross product of time and length differentials and then applies the Lorentz Force Law. One form of this law states that the curl of the electric field is the negative time derivative of the magnetic field, and (*) Lenz's Law describes the negative sign found in this law. Maxwell generalized this equation and included in his namesake four equations, and it describes the force resulting from a change in magnetic flux. This law forms the basis for transformers since it describes using induction to generate electromotive force. For 10 points, name this law of electromagnetism named for an English physicist.**

ANSWER: **Faraday's** Law of Electromagnetic Induction

Bonuses

1. English physicist Henry Moseley observed the frequency of the most intense short-wavelength x-ray line in the atomic spectrum of each of the elements. For 10 points each:

[10] Moseley's law states that the K-alpha frequency scales as this function of atomic number. The Rydberg formula's prediction for the energy of an electron is also inversely proportional to this function of atomic number.

ANSWER: **square** (accept obvious equivalents, also accept "(Z-1) **squared**")

[10] This value is equal to the atomic number plus the number of neutrons, meaning it's equal to the number of protons and neutrons in a nucleus.

ANSWER: **mass number**

[10] This type of decay notably doesn't change mass number. It's most likely for certain nuclides such as technetium-99m and many forms of U-238, and involves the emission of light.

ANSWER: **gamma** decay

2. Claudette Colvin was arrested in this city, where Martin Luther King Jr. delivered one of his first major speeches at the Holt Street Baptist Church. For 10 points each:

[10] Name this Southern city, the site of an event that lasted 381 days. Three marches from Selma to this city took place in favor of the Voting Rights Act.

ANSWER: **Montgomery**, Alabama (accept **Montgomery** bus boycott)

[10] The Montgomery bus boycott began after this seamstress was arrested for refusing to give up her seat on a bus to a white man.

ANSWER: Rosa (Louise McCauley) **Parks**

[10] A prominent leader of the boycott was E.D. Nixon, a leader of the NAACP and member in this labor organization made up of railway employees. Its founder and leading voice was Asa Philip Randolph.

ANSWER: **Brotherhood of Sleeping Car Porters** (prompt on "BSCP")

3. Throughout the years, filmmakers have had to innovate footage techniques to keep viewers interested. For 10 points each:

[10] Red-and-blue, polarizing, and other special glasses have been used throughout the decades to engage in this film technique. *Avatar*'s usage of this technique ushered in its modern age.

ANSWER: **3D** (or **three-dimensional** stereoscopic; accept specific brands, like IMAX **3D**)

[10] Horror films have gained mileage from using "found footage," which was pioneered by this 1999 film about a bunch of college filmmakers getting lost in the woods and being picked off by the title sinister being.

ANSWER: *The **Blair Witch Project*** (prompt on just "**Blair Witch**")

[10] The 2015 comedy *Tangerine* was notably filmed entirely using three of these devices and the software "Filmic Pro." Other films made with these devices include *Framed*, *Night Fishing*, and parts of *Searching for Sugar Man*.

ANSWER: **iPhone**s (prompt on **phone**; accept specific models of iPhone, like **iPhone** 5S)

4. The Google DeepMind Go-playing program AlphaGo relied on these constructs. For 10 points each:
[10] Name these constructs. They work by setting a bunch of weights and learning rules, and then growing naturally, just like their namesake biological constructs.

ANSWER: **neural networks**

[10] Neural nets were developed in the field of machine learning, itself a subfield of this division of computer science that seeks to simulate human brains in computers and programs. A persistent fear in this field is the rise of the “singularity.”

ANSWER: **artificial intelligence** (or **AI**)

[10] A primitive form of machine learning is the usage of these classifiers that rely on priors and their namesake law from probability. The naive form of these classifiers are commonly used to filter spam.

ANSWER: naive **Bayesian** classifier

5. This empire was supposedly founded by the Queen of Sheba. For 10 points each:

[10] Name this empire in present-day Ethiopia, known for erecting large stone pillars called *stelae*.

ANSWER: Kingdom of **Aksum** (or **Aksumite** Empire; dunno why it would ever matter, but accept **Axum**)

[10] Ezana was the first leader of Aksum to embrace this faith after it was brought over by St. Frumentius. Constantine the Great was the first Roman emperor of this now widely spread faith.

ANSWER: **Christianity**

[10] The trading power of Aksum was recorded in one of these documents named for the Erythrean Sea. These Greek manuscripts aided sailors by providing a map of notable ports and other locations on a body of water.

ANSWER: **periplus** (or **peripli**; *Ed's note: shoutouts to Will Alston*)

6. One of these buildings in Iran pioneered an architectural layout named for its four alcove-like spaces called *iwan*. For 10 points each:

[10] Name these Muslim religious buildings where prayer is led by an *imam*.

ANSWER: **mosques** (or *al-masjid*)

[10] A defining feature of mosques are these tall towers from which the *muezzin* announces the call to prayer.

ANSWER: **minarets**

[10] Each mosque will also contain one of these special niches. They guide prayer by marking the *qiblah*, or direction to Mecca.

ANSWER: **mihrab**

7. This piece requires the performer to execute ridiculous tasks like a 35 half-step jump following a sixteenth note, as well as numerous trills between the fourth and fifth fingers. For 10 points each:

[10] Name this work for solo piano. It derives its name from the percussion instrument featured in the final movement of Niccolò Paganini's second violin concerto.

ANSWER: “La **Campanella**” (prompt on “the bell”)

[10] “La Campanella” is included in a collection of six “grand” ones of these works inspired by Paganini. The same composer also wrote a collection of *Transcendental* examples of these works whose name means “studies.”

ANSWER: **etudes**

[10] This virtuoso pianist wrote both “La Campanella” and the *Transcendental Etudes*. He also wrote several *Hungarian Rhapsodies* and inspired a namesake “mania” with his playing talent.

ANSWER: Franz **Liszt**

8. The central family in this story stops to eat at Red Sammy's diner. For 10 points each:

[10] Name this story in which Bailey's family is murdered by the Misfit and his gang after the Grandmother mistakenly remembers the location of an abandoned house on a trip to Florida.

ANSWER: "**A Good Man is Hard to Find**"

[10] "A Good Man is Hard to Find" was written by this Southern Gothic writer. Her other short stories include "Everything that Rises Must Converge" and "The Lame Shall Enter First."

ANSWER: (Mary) Flannery **O'Connor**

[10] This novel, O'Connor's first, follows Hazel Motes as he founds a "Church Without Christ." Motes' partner Enoch Emory steals a gorilla suit as part of his delusion that he possesses the title revelatory substance.

ANSWER: **Wise Blood**

9. In his most notable bronze statue, the wing of a helmet seductively rests on the central figure's inner thigh. For 10 points each:

[10] First, name this sculptor of the first free-standing nude since antiquity. He also created a wooden sculpture of a woman with floor-length hair in his *Penitent Magdalene*.

ANSWER: **Donatello** (or Donato di Niccolò di Betto **Bardi**)

[10] The aforementioned bronze statue was of this Biblical figure, the most famous version of which was created by Michelangelo, rests at the Academy, and depicts him holding a sling.

ANSWER: **David**

[10] Donatello also sculpted a statue of the prophet Habbakuk for the belltower of the Florence Cathedral, which is usually given this nickname due to the sculpture's baldness.

ANSWER: *Il **Zuccone*** (prompt on "pumpkin" or "pumpkin-head")

10. The title character of this story is related in a childhood tale told to Nathaniel about a figure who feeds eyes to his children. For 10 points each:

[10] Name this E.T.A. Hoffman story in which Nathaniel goes mad after falling in love with Spallanzani's "daughter," Olympia. Nathaniel eventually jumps off a cliff while screaming "pretty eyes!"

ANSWER: "The **Sandman**"

[10] Another E.T.A. Hoffman story is one about this Christmas toy, who comes alive and helps the young Marie defeat the Mouse King.

ANSWER: the **Nutcracker** (accept "The **Nutcracker** and the Mouse King")

[10] In "The Sandman," it turns out that Olympia is actually an automaton. This Czech playwright would later coin the term "robot" in his play R.U.R.

ANSWER: Karel **Čapek** ["TCHA-pek"]

11. For 10 points each, name these things related to cattle and the Greek mythologies surrounding those who take them:

[10] The Tenth Labor of this hero was to steal the Cattle of Geryon. Other labors of this super-strong hero included killing the Hydra and capturing Cerberus. You can give the Greek or Roman name.

ANSWER: **Heracles** (accept **Hercules**)

[10] This pair of twins fought with Idas and Lynceus after attempting a cattle raid on the latter. They were known as the Dioscuri in Greek, and the Gemini in Latin.

ANSWER: **Castor and Pollux** (prompt on partial; accept **Polydeuces** in place of Pollux; prompt on **Tyndaridae**)

[10] Going back to Heracles, Heracles briefly went mad after being falsely accused of stealing some cattle actually taken by this career thief. This figure was both the son of Hermes and the grandfather of Odysseus.

ANSWER: **Autolycus**

12. This author's 2016 novel *Nutshell* is partially narrated by a fetus. For 10 points each:

[10] Name this British author whose most famous novel centers on Briony Tallis's mistaken accusation of Robbie as a rapist. That novel by this author ends with the revelation that its first three parts were a fiction written by Briony.

ANSWER: Ian (Russell) **McEwan**

[10] In McEwan's *Atonement*, Robbie is inspired by his reading of this sultry book in writing a letter. In this D.H. Lawrence book, Constance has an affair with her husband's gameskeeper.

ANSWER: ***Lady Chatterly's Lover***

[10] McEwan also wrote the book *Amsterdam*, a city in which this girl had hidden behind a bookcase 50 years earlier, writing her namesake diary.

ANSWER: Anne **Frank** (or Annelies Marie **Frank**)

13. One work on this concept argues that "it may save the world from barbarism." For 10 points each:

[10] First, name this concept that the French thinker Georges Sorel wrote some "*Reflections on*." Another thinker wrote about the "monopoly" of a similarly translated term in *Politics as Vocation*.

ANSWER: **violence** (accept **force**)

[10] The aforementioned author of *Politics as Vocation* was this man, who discussed the state's "monopoly on violence." This sociologist also wrote *The Protestant Ethic and Spirit of Capitalism*.

ANSWER: Max **Weber**

[10] Sorel and his writings on violence were also a strong influence on this political ideology. Prominent leaders of this far-right ideology included Francisco Franco and Benito Mussolini, and its name is derived from a Roman symbol of a bundle of rods.

ANSWER: **Fascism** (accept word forms)

14. Paul Hindemith parodied this opera's overture, writing a version of it "as sight-read by a bad spa orchestra at seven in the morning by the well." For 10 points each:

[10] Name this opera. Its second act opens a chorus of spinners singing at the house of the Norwegian sea captain Daland, who has promised his daughter Senta to the title figure.

ANSWER: ***The Flying Dutchman*** (or ***Der fliegende Holländer***)

[10] This opera by the same composer as *The Flying Dutchman* was performed by the Met using a gigantic apparatus known as "The Machine." It ends with Wotan summoning a ring of fire to protect the body of Brünnhilde, one of the title women.

ANSWER: ***The Valkyrie*** (or ***Die Walküre***)

[10] *The Flying Dutchman* is a work by this German composer, who also included *The Valkyrie* as the second opera in his *Ring Cycle*.

ANSWER: (Wilhelm) Richard **Wagner**

15. Medicine can sometimes be dangerous...for patients. Answer the following about historical figures killed by their doctors, for 10 points each:

[10] This historian died of an infection resulting from surgery to fix the testicular swelling caused by his fondness for tight pants. Before his death, this man wrote a six-volume history of the *Decline and Fall of the Roman Empire*.

ANSWER: Edward **Gibbon**

[10] Charles the Bad, a leader of this kingdom between Spain and France, died when the alcohol-soaked rags his nurses swaddled him in caught fire. Several Sanchos ruled this Basque kingdom once called Pamplona.

ANSWER: Kingdom of **Navarre**

[10] Some claims of medical malpractice are fabricated, such as this leader's declaration that his Jewish doctors were conspiring to assassinate him. This man led the Soviet Union during World War II.

ANSWER: Joseph (Vissarionovich) **Stalin** (or Iosif Vissarionovich **Dzugashvili**)

16. The longest road-rail bridge in Europe spans and is named for this body of water. For 10 points each:

[10] Name this strait that lies to the west of Malmö. Along with the Great and Little Belts, this body of water allows ships to leave the Baltic Sea and pass through the Kattegat and Skagerrak.

ANSWER: **Øresund**

[10] This island is separated from the Swedish mainland by the Øresund. A nation similarly named to this island is the home of the Southern Alps, as well as cities like Christchurch.

ANSWER: **Zealand** (or **Sjælland**; accept New **Zealand**, but point out the real answer if they give the “New”)

[10] This is the most populous city on Zealand. It contains attractions such as a statue of Hans Christian Andersen’s Little Mermaid and serves as the capital of Denmark.

ANSWER: **Copenhagen** (or **København**)

17. A proposed etymology for this genre is from the words “village” and “singing.” For 10 points each:

[10] Name this category of drama typically contrasted with tragedy. Aristotle’s lost second book of the *Poetics* addresses it.

ANSWER: **comedy**

[10] This arguably most famous Greek comedy playwright described the construction of Cloudcuckooland in *The Birds* and Dionysius’s venturing into the underworld in *The Frogs*.

ANSWER: **Aristophanes**

[10] A stock character in Greek and Roman comedy is the “miles gloriosus,” an extremely “proud” one of these characters. Pyrgopolynices is one of these people in Plautus’s play *Miles* [“mee-lays”] *Gloriosus*.

ANSWER: **soldier** (do not accept synonyms, since the translation is pretty canonical)

18. Potassium tert-butoxide is important. Let’s find out why, for 10 points each:

[10] Notably, potassium tert-butoxide is a strong compound of this type without being a strong nucleophile as well. By the Brønsted-Lowry definition, these compounds accept protons from acids.

ANSWER: **bases**

[10] As a strong base and weak nucleophile, potassium tert-butoxide can participate in this class of reactions, without causing competing substitution reactions. More generally, these reactions remove groups from the reactant, and dehydration reactions are an example.

ANSWER: **elimination** (accept word forms; accept **E1** or **E2**)

[10] Schlosser’s base can be made from combining potassium tert-butoxide with a compound containing this other metal. The aluminum hydride of this metal is a very common reducing agent.

ANSWER: **lithium** (prompt on **Li**)

19. For 10 points each, name the following about the Midlothian campaign:

[10] The Midlothian campaign was the brainchild of this politician. This consistent rival of Disraeli led the Liberal Party to victory in the 1880 election, starting the second of his four stints as Prime Minister.

ANSWER: William Ewart **Gladstone**

[10] In the Midlothian campaign, Gladstone criticized British conduct in the war against these African people, which included battles at Isandlwana and Rorke’s Drift. This empire was founded by Shaka.

ANSWER: **Zulu** Kingdom

[10] Gladstone attacked Benjamin Disraeli’s support of the Ottoman Empire, especially after its crushing of the April Uprising in this modern-day country, which included namesake “horrors” such as the Batak massacre.

ANSWER: **Bulgaria** (accept **Bulgarian** Horrors)

20. Bacteria of the genus *Mycoplasma* are unique among prokaryotes in that they lack this structure. For 10 points each:

[10] Name this rigid structural layer outside the cell membrane that also surrounds the cells of plants and fungi. These structures protect the cells they enclose from osmotic lysis.

ANSWER: **cell wall**

[10] In plants, the cell wall is mainly made up of xylan, lignin, and this polymer. This straight-chain polymer is additionally found in dietary fiber and bacterial biofilms.

ANSWER: **cellulose**

[10] These waxy deposits of suberin in the cell wall interrupt the apoplastic pathway in plant roots. These diffusion barriers prevent water and minerals from leaking from the stele to the cortex.

ANSWER: **Casparian strip**

21. After causing God to poof out of existence using an argument based on this animal, one character goes on to prove that black is white before getting run over at a zebra crossing. For 10 points each:

[10] Name this fictional organism which secretes a “telepathic matrix” after it has been placed into a person’s ear, allowing that person to understand all languages.

ANSWER: **Babel Fish**

[10] The Babel Fish is introduced in this book. In this book, Arthur Dent and Ford Prefect are tortured by being forced to listen to Vogon poetry, which is acknowledged as the third worst in the Universe.

ANSWER: *The **Hitchhiker’s Guide to the Galaxy***

[10] *The Hitchhiker’s Guide to the Galaxy* is a work by this British science fiction author.

ANSWER: Douglas (Noel) **Adams**