



2016 Washington/Hickman Academic Questionfest (WHAQ)

Edited by Jacob O'Rourke (Head Editor); David Dennis; Seth Ebner;
Chris Chiego, and Jake Sundberg. Special Thanks goes to Eric Mukherjee and Sean
Phillips.

Written by members of the Washington (Joe Stitz, Sophia Johnson, Carrie Derner, Matt
Chalem, Jonathan Amlong, Cole Phinney) and Hickman (Alex Harmata, Diana Harmata,
Wenzer Qin, Sherry Xie, Owen Pasley, Jackson Atkins, Stephen Bunch and Dinis
Trindade) Teams

Packet 6

Tossups

1. Utnapishtim recounts how the land was set ablaze by the rulers of this place, the Annunaki, in preparation for the Flood. Avici is the lowest level of one of these places in Buddhism, which is divided into several Narakas (“nuhr-uh-kuhs”). In order to visit one of these places, Aeneas delivers the Golden Bough to the Cumaean Sibyl. Rhadamanthus and Aeacus (“ee-uh-kuhs”) are two of the three (*) judges of one of these places in Greek myth. Elysium is part of another one of these places, which includes the rivers Lethe (“lee-thee”) and Styx. For 10 points, name these places where spirits of the dead go, one of which is ruled by Hades in Greek mythology.

ANSWER: underworlds [or hells; or Hades until it is read; or land of the dead until “spirits” is read; or realms of the dead until “spirits” is read; or Naraka until it is read; prompt on afterlife] <Joe Stitz>/<ed. Jacob>

2. A narrator of this novel dreams that a ghost's hand reaches into his room and breaks his window. A character in this novel throws hot applesauce in the face of a character who insults his hair. A protagonist of this book is adopted from an orphanage in Liverpool. This novel's narrators are Mr. Lockwood, who rents a room at (*) Thrushcross Grange, and the maid Nelly Dean. In this novel, Isabella Linton marries Heathcliff, who loves Catherine Earnshaw. For 10 points, name this only published novel by Emily Bronte.

ANSWER: Wuthering Heights <Joe Stitz>/<ed. Jacob>

3. After a speech by a member of this organization named Leonora Barry, Rockford, Illinois renamed the 4th of July as “Foremothers’ Day.” Some members of this organization were responsible for a massacre of Chinese miners at Rock Springs, Wyoming. This organization’s first Grand Master Workman was Uriah (*) Stephens, who was succeeded by Terence Powderley. The influence of this organization declined after it was blamed for the Haymarket Square Riot. For 10 points, name this late 1800's labor union, which lost favor to the American Federation of Labor.

ANSWER: Knights of Labor [Noble and Holy Order of the Knights of Labor; or KOL] <Cole Phinney>/<ed. Jacob>

4. Randy Johnson briefly played for this team in the final months of the 1998 season. Along with the Mets, this team was the first expansion team in the National League. Until the end of the 2016 season, this team’s current stadium was the home of “Tal’s Hill” in center field. A player for this team was the only player to be named an All-Star at both catcher and second base. That player is Craig Biggio. Before moving from the NL to the (*) AL, this team was hacked by an employee of their former division rivals, the St. Louis Cardinals. For 10 points, name this team with players such as Dallas Keuchel (“Keye-kul”), Carlos Correa and Jose Altuve, which is based in Texas.

ANSWER: Houston Astros [or Houston Astros] <Jonathan Amlong>/<ed. Sean>/<ed. Jacob>

5. This man invented a smokeless gunpowder substitute called pyrocollodion, and theorized the existence of coronium in an attempt to explain the aether (“EE-ther”). As Head of the State Bureau of Weights and Measures, this man determined the proper balance of alcohol in vodka to be at 40%. This student of Bunsen predicted the properties of (*) “eka-aluminum” and “eka-boron,” which are now known as gallium and scandium. His most famous work was modified by Moseley and, later, by Seaborg. For 10 points, name this Russian chemist credited with formulating the Periodic Table of the elements.

ANSWER: Dmitri Ivanovich Mendeleev <David Dennis>

6. Louis Vauxcelles (“vox-ELL”) unintentionally coined the term for this style while critiquing the painting *Houses at L’Estaque*. Max Weber painted *Chinese Restaurant* while working in the “Synthetic” form of this art style. *Violin and Candlestick* was painted by a developer of this style named Georges Braque. Another developer of this style painted five nude women wearing (*) African masks, as well as *The Old Guitarist*. For 10 points, name this artistic movement that included Pablo Picasso’s *Les Femmes d’Alger*, which used basic geometric shapes.

ANSWER: Cubism [or word forms, such as cubist; or Synthetic Cubism] <Joe Stitz>/<ed. Jacob>

7. **Widukind lead a revolt against this monarch after he beheaded over 4,000 Saxons at the Massacre of Verden. After attending a meeting at Thionville, this monarch besieged the Lombards led by Desiderius at Pavia. This king's biography was written by the historian (*) Einhard, and his grandsons divided his empire in the Treaty of Verdun. Pope Leo III crowned him on Christmas Day 800. For 10 points, name this Frankish king who is usually called the first Holy Roman Emperor.**

ANSWER: **Charlemagne** [**Charles the Great**; or **Carolus Magnus**; or **Charles I**; prompt on Charles or Carolus] <Cole Phinney>/<ed. Jacob>

8. **This gland may have an extra lobe called Lalouette's pyramid. The two main hormones this gland produces are both derivatives of tyrosine. PTH opposes the action of one of the hormones it produces, calcitonin. Underactivity in this gland in utero can cause (*) Hashimoto's disease, while overactivity can cause Grave's disease. This gland's namesake cartilage is the "Adam's apple." For 10 points, name this butterfly-shaped gland which may develop a goiter due to iodine insufficiency.**

ANSWER: **Thyroid** gland <Wenzer Qin/ed. David Dennis>

9. **The protagonist of a novel by this man runs the Wellspring Methodist Church and has an affair with his secretary, Hettie Bowler. The title character of a novel by this author is an engineer who sells the Revelation Motor Company. This author of *Elmer Gantry* and *Dodsworth* set most of his novels in the fictional town of (*) Zenith and wrote about the doctor Martin Arrowsmith, whose wife Leora dies after contracting the plague. For 10 points, name this American author of *Babbitt*, who created Carol Kennicott in *Main Street*.**

ANSWER: Sinclair **Lewis** [Harry Sinclair **Lewis**] <Joe Stitz>/<ed. Jacob>

10. **These animals were the subject of a 20 year study at the Jackson Laboratory by John Scott and John Fuller. In an experiment, these animals were placed in the part of a divided crate where electrical shocks were administered. When these animals could not stop those shocks in a Martin Seligman experiment, they demonstrated learned helplessness. In an example of (*) classical conditioning, these animals were taught to salivate when they heard the ringing of a bell. For 10 points, name these animals that were the subject of experiments by Ivan Pavlov.**

ANSWER: **Dogs** [or **canines**; or any specific type of dog, such as a **golden retriever**] <Jacob O'Rourke>

11. **This quantity solves Steiner's problem, which asks for the value of x that maximizes x to the power of one over x. This quantity appears in the denominator of Stirling's formula for the asymptotics of the factorial function. It can be defined as the sum from zero to infinity of one over n factorial, or by the limit of one plus one over n, all to the n-th power as n approaches (*) infinity. That definition arose from Jacob Bernoulli's studies in compound interest. This value, when raised to the power of i times pi, equals -1. For 10 points, name this transcendental number equal to about 2.718 that is the base of the natural log.**

ANSWER: **e** [or **Euler**'s number; or **Napier**'s constant; do NOT accept or prompt on "Euler's constant"] <Wenzer Qin>/<ed. Seth Ebner>

12. **This man described a “rider distorted and pale, with the dew on his brow and the rust on his mail” in a poem about an Assyrian king who “came down like the wolf on the fold.” This author talks of “a heart whose love is innocent!” in his poem about a woman who is described as being “like the night, of cloudless climes and starry skies.” This author of “The Destruction of (*)Sennacherib” (“seh-NAK-er-ihb”) mockingly dedicated to Robert Southey an epic poem about a man who is easily seduced by women. For 10 points, name this English Romantic poet of “She Walks in Beauty” and *Don Juan* (“Don Joo-an”).**

ANSWER: Lord Byron [George Gordon, Lord Byron] <Carrie Derner>/<ed. Jacob>

13. **The UN approved of this country’s claim of the Benham plateau, an area that is completely under water, in 2012. A university in this country had its website defaced by hackers after a standoff over the guano-covered(*) Scarborough Shoal. This country has won a binding arbitration case in the Hague over China’s use of the “nine-dash line” in the South China Sea. For 10 points, name this country disputing control of the Spratly Islands with capital Manila.**

ANSWER: The Philippines [Republic of the Philippines; or Republika ng Pilipinas] <David Dennis>

14. **This man mixed Christianity and traditional beliefs in the New Life Movement, which was supported by the Blue Shirt Society. This man led the Northern Expedition against the Beiyang Government, ending the era of warlords. This man was kidnapped in the Xi’an Incident, which led him to agree to a united front against Japan. This general succeeded(*) Sun Yat-sen as leader of the Kuomintang, and his Encirclement Campaigns forced an enemy to retreat on the Long March. For 10 points, name this leader of the Chinese Nationalists, who fled to Taiwan after losing a civil war to Mao Zedong.**

ANSWER: Chiang Kai-shek [Chiang Chieh-shih; or Chiang Chung-cheng; or Jiang Jieshi; or Jiang Zhongzheng] <Cole Phinney>/<ed. Jacob>

15. **This man claimed Jews were the “blood relatives” of Christ in one work, but later encouraged the burning of synagogues in *On The Jews and Their Lies*. This man argued that the body and blood of Christ are physically, not symbolically, present in the Eucharist while debating at the(*) Marburg Colloquy (“mahr-burg kol-uh-kwee”) with Ulrich Zwingli (“Ool-rick zwing-lee”). Frederick the Wise of Saxony granted this theologian safe passage to the Diet of Worms (“wurmz”), where he was excommunicated by Pope Leo X. For 10 points, name this German monk whose *Ninety Five Theses* helped to kick off the Protestant Reformation.**

ANSWER: Martin Luther <Sophia Johnson>/<ed. Jacob>

16. **After having a dream about the “king of the dragon palace,” this novel’s title character leaves his exile at Suma. The title character of this novel perfectly performs the “Waves of the Blue Sea” dance. This novel’s Uji chapters, which focus on the rivalry between Kaoru (“COW-roo”) and Niou (“NEE-oo”), follow a blank chapter that is titled “Vanished into the Clouds,” which implies that the title character died. The title character of this (*)Heian-era novel fathers the emperor Reizei with Lady Fujitsubo and is married to Aoi (“ah-oh-ee”). For 10 points, name this early Japanese novel written by Lady Murasaki Shikibu.**

ANSWER: *The Tale of Genji* [Genji monogatari] <Sherry Xie>/<ed. Jacob>

17. **This country's Nyanga National Park includes a panorama called "World's View" while granite rock outcrops that look like bald heads led to the name of its Matobo National Park. The Umkondo Basin may replace the Marange fields as the primary source of diamonds in this country. The Great(*) Enclosure is part of a ruined 11th century city built by the ancestors of the Shona people in this country. Formerly known as Southern Rhodesia, this country's northern border with Zambia is defined by the Zambezi River, including Victoria Falls.** For 10 points, name this landlocked African country whose capital is Harare.

ANSWER: Zimbabwe [Republic of Zimbabwe] <David Dennis>/<ed. Chris Chiego>

18. **The pseudo-Goldstone versions of this particle arise in a quantum framework with both spontaneous and explicit symmetry breaking. These particles, such as the hypothetical spin-2 graviton, mediate the interactions of other elementary particles, and they have integer spin. The scalar kind of this particle has a spin of zero, and the(*) "gauge" variety of these particles includes the gluon and photon. For 10 points, name this class of elementary particle which are named for an Indian physicist, the "Higgs" variety of which was confirmed discovered by CERN in 2013.**

ANSWER: Bosons <David Dennis>/<ed. Seth Ebner>

19. **One work in this genre intersperses the usual Latin texts with poems by Wilfred Owen. That work, written by Benjamin Britten, is usually called the "War" one of these pieces. Another work in this genre uses texts from the Luther Bible; that is(*) Brahms's "German" one. Verdi wrote a work in this genre, and a commonly performed section from it starts out with four sforzato chords; the *Dies Irae*. Mozart wrote another work in this genre in D minor, but it was left unfinished at his death. For 10 points, name these masses for the dead.**

ANSWER: Requiem mass <Wenzer Qin/ed. David Dennis>

20. **This country's last king was nicknamed "the Unfortunate" because he inherited the throne due to the 1908 assassination of his father and brother. To protect this country's capital during the Napoleonic Wars, the Duke of Wellington ordered the construction of the Lines of Torres Vedras. This country was ruled by the dictator Antonio Salazar after the establishment of the(*) Estado Novo. This country's Aviz dynasty included Prince Henry the Navigator, and it sponsored the voyages of Vasco da Gama to India. For 10 points, name this Iberian nation, which once owned Brazil.**

ANSWER: Portugal [Portuguese Republic; or Republica Portuguesa; or Kingdom of Portugal; or Reino de Portugal]<Dinis Trindade>/<ed. Jacob>

Tiebreaker

This man created a hexagonal-shaped church that is topped with a large center spire. This man designed both the North Christian Church in Columbus, Indiana and an ice rink that is nicknamed “the Whale” due to its resemblance to a whale’s tail. This architect of Yale’s Ingalls Rink created the main terminal of Dulles and the TWA flight center at JFK. This architect designed a monument to(*) westward expansion in the United States that has a weighted, inverse-catenary shape. For 10 points, name this Finnish-American architect of the Gateway Arch in St. Louis.

ANSWER: Eero Saarinen [do NOT accept or prompt on “Eliel Saarinen”] <Cole Phinney>/<ed. Jacob>

Bonuses

1. This rule is often written as $n_1 \sin \theta_1 = n_2 \sin \theta_2$, where n stands for index of refraction. For 10 points each:

[10] Identify this formula that describes the relationship between angles of incident light and refracted light. It can be derived from Fermat's principle of least time.

ANSWER: **Snell's Law**

[10] When light traveling into a medium of lower refractive index is incident at this angle, the refracted ray has an angle of ninety degrees. This is the angle past which incident light will experience total internal reflection instead of refraction.

ANSWER: **critical angle**

[10] Snell's Law can be used to determine that Brewster's angle--the angle of incidence at which polarized light experiences no reflection--is equal to this function of the quotient of final and initial materials' refractive indices.

ANSWER: **arctangent** or **inverse tangent** [do not accept "tangent"] <Wenzer Qin>/<ed. Seth Ebner>

2. This thinker equated despair with the title condition in a book whose title comes from a scene in the Gospel of John, where Jesus speaks to Lazarus. For 10 points each:

[10] Identify this Danish existentialist philosopher who wrote *Either/Or* and *The Sickness Unto Death*.

ANSWER: Soren **Kierkegaard** [Soren Aabye **Kierkegaard**; prompt on Anti-Climacus; prompt on Victor Eremita; prompt on Johannes de Silento; prompt on John of the Silent]

[10] This book by Kierkegaard asks whether there is a "teleological suspension of the ethical," and contrasts the "knight of resignation" with the "knight of infinite faith."

ANSWER: **Fear and Trembling** [**Frygt og Bæven**]

[10] The "knight of infinite faith" in *Fear and Trembling* is represented by this Biblical patriarch. *Fear and Trembling* examines his willingness to sacrifice his son, Isaac.

ANSWER: **Abraham** [or **Avraham**; or **Abram**; or **Avram**] <Wenzer Qin>/<ed. Jacob>

3. The speaker of this poem states that "Things fall apart; the centre cannot hold." For 10 points each:

[10] Name this poem about a "rough beast" that "slouches towards Bethlehem to be born." The speaker of this poem is troubled by "a vast image out of Spiritus Mundi."

ANSWER: "The **Second Coming**"

[10] "The Second Coming" was written by this Irish poet of "Easter, 1916." He declared "that is no country for old men" in his "Sailing to Byzantium."

ANSWER: William Butler **Yeats** ("Yates")

[10] The speaker of this Yeats poem laments that "Cuchulain fought the ungovernable sea." The speaker of this poem declares that "I must lie down in the foul rag and bone shop of the heart."

ANSWER: "The **Circus Animals' Desertion**"<Joe Stitz>/<ed. Jacob>

4. His *On the Transmigration of Souls*, which commemorated the September 11 attacks, won a Pulitzer in 2003. For 10 points each:

[10] Name this American minimalist composer of operas like *Nixon in China*. An opera by this man was alleged to be anti-semitic when it was performed at the Met in 2014.

ANSWER: John Coolidge **Adams**

[10] That John Adams opera told the story of the Palestine Liberation Front's 1985 hijacking of the *Achille Lauro*, resulting in the death of the wheelchair-bound title Jewish-American.

ANSWER: ***Death of Klinghoffer***

[10] Adams' *Doctor Atomic* centers on the people in this project, led by Robert Oppenheimer. It includes texts from Donne's Holy Sonnets and traditional Pueblo Indian songs.

ANSWER: **Manhattan** Project <David Dennis>

5. The popularity of this first female prime minister waned after she instituted the Community Charge poll tax. For 10 points each:

[10] Name this conservative prime minister of the United Kingdom for the entirety of the 1980's. She was nicknamed the "Iron Lady."

ANSWER: Margaret **Thatcher** [Margaret Hilda **Thatcher**]

[10] During Thatcher's premiership, Argentina's Leopoldo Galtieri instigated a war over these islands. During the war, British troops invaded South Georgia Island and captured Stanley.

ANSWER: **Falkland** Islands [or **Malvinas** Islands; or **Falklands** War; or **Malvinas** War; or **Falkland** Islands War; or **South Atlantic** War]

[10] Thatcher was nicknamed "Milk Snatcher" while serving in the cabinet of this Prime Minister. He oversaw the decimalization of British coinage and the height of the Troubles.

ANSWER: Edward **Heath** [Edward Richard George **Heath**; or Ted **Heath**] <Alex Harmata>/<ed. Jacob>

6. Answer some questions about the works of Mark Twain. For 10 points each:

[10] The protagonist of this Twain novel witnesses the feud between the Grangerfords and the Shepherdsons while traveling down the Mississippi River with the escaped slave Jim.

ANSWER: **Huck Finn** [*The Adventures of **Huckleberry Finn***]

[10] In this Twain novel, the title lawyer uses fingerprinting to prove that the fake Tom murdered Judge Driscoll.

ANSWER: **Pudd'nhead Wilson** [*The Tragedy of **Pudd'nhead Wilson**, and the Comedy of Those Extraordinary Twins*]

[10] This protagonist of a Twain novel usurps the position of Merlin after he uses science to predict a solar eclipse. This character travels back in time after being hit in the head.

ANSWER: **Hank** Morgan [or Hank **Morgan**; prompt on the **Connecticut Yankee** or *A Connecticut Yankee in King Arthur's Court*] <Alex Harmata>/<ed. Jacob>

7. This concept names a type of yoga that involves disciplining one's actions as a path to God. For 10 points each:

[10] Name this concept, which is the universal law of cause and effect in Hinduism. This concept can be accumulated in either "good" or "bad" forms.

ANSWER: **Karma** [or **Karman**; or **Kamma**]

[10] Practitioners of yoga aim to achieve moksha, which is liberation from this cycle of rebirth perpetuated by karma.

ANSWER: **Samsara**

[10] Buddhism rejects this term for a permanent soul. In Advaita Vedanta, this term for the "true self" is considered identical with Brahman.

ANSWER: **Atman** <Sophia Johnson>/<ed. Jacob>

8. Prior to this battle, half of the losing army was sent to capture Khliat under the command of Joseph Tarchaneiotes. For 10 points each:

[10] Name this 1071 battle, where the Byzantine emperor Romanos IV Diogenes was captured by the Seljuk Turks under Alp Arslan.

ANSWER: Battle of **Manzikert**

[10] A plea for help against the Seljuk Turks from Byzantine emperor Alexius I enabled Pope Urban II to declare "God wills it" while calling for this campaign at Clermont.

ANSWER: The **First Crusade** [prompt on the crusades]

[10] At the end of the First Crusade, Godfrey of Bouillon became king of this city. This holy city of Christianity is home to the Temple Mount and the Dome of the Rock.

ANSWER: **Jerusalem** [or **al-Quds**; or **Jerushalayim**; or **Urusalim**; or **Yerushalayim**] <Cole Phinney>/<ed. Jacob>

9. Memory can be dynamically allocated in this language using functions such as malloc. For 10 points each:

[10] Name this programming language which was created by Dennis Ritchie, who also wrote a book about this language with Brian Kernighan. Bjarne Stroustrup created a language named for this one whose name includes the incrementation operator.

ANSWER: **C** [the other language is C++]

[10] In languages such as C, C++ ("**see plus plus**"), and Java, these data structures are declared using square brackets. Their elements can only be of a single type, and unlike vectors, these structures' sizes remain fixed.

ANSWER: **Arrays**

[10] Programs written in C often start with a list of names of these files prepended by the "#include" directive. These files, which end in the suffix ".h" ("**dot-h**"), often contain declarations of functions.

ANSWER: **header** files <Wenzer Qin>/<ed. Seth Ebner>

10. It's not nice when folks "to an absurd degree, are fixated on your verdigris ("ver-duh-gree"). For 10 points each:

[10] Name this musical that focuses on the lives of Glinda and Elphaba. The musical takes place before the events of *The Wizard of Oz*.

ANSWER: **Wicked**: *The Untold Story of the Witches of Oz*

[10] This award-winning composer wrote the hit musical *Wicked*, and worked on a number of successful films with Alan Menken, including *The Hunchback of Notre Dame*.

ANSWER: Stephen Lawrence **Schwartz**

[10] Schwartz has been nominated for six of these awards, which recognize achievement in live Broadway theatre. Neil Patrick Harris has hosted these awards four times.

ANSWER: The **Tony Awards** [or The **Tonys**; or The **Antoinette Perry Award for Excellence in Theatre**] <Wenzer Qin>/<ed. David Dennis>

11. Answer the following about the career of Plutarco Elías Calles ("Kai-yes"). For 10 points each:

[10] Calles defeated this revolutionary at Agua Prieta. This revolutionary's raid on Columbus, New Mexico prompted a John Pershing-led expedition that attempted to capture him.

ANSWER: Pancho **Villa** ("Veey-ah") [Francisco **Villa**; or Doroteo **Arango**]

[10] Calles hailed from this country, where he created the predecessor of its PRI party. This country's revolution resulted in the overthrow of dictator Porfirio Diaz.

ANSWER: **Mexico** [**United Mexican States**; or **Estados Unidos Mexicanos**]

[10] Calles tried to restrict the influence of this institution with provisions of the Constitution of 1917, which led peasants that supported this organization to revolt in the Cristero War.

ANSWER: **Catholic** Church [or the Roman **Catholic** Church in Mexico; or the **Holy See**] <Cole Phinney>/<ed. Jacob>

12. In this novel, the Election Day sermon is delivered by Reverend Arthur Dimmesdale, who reveals that he is the father of Pearl. For 10 points each:

[10] Name this novel about Hester Prynne, a young woman who has an affair and is punished by marking her clothing with an "A" for adultery.

ANSWER: *The **Scarlet Letter***

[10] This author of *The Scarlet Letter* wrote about a curse placed on the Pyncheon family by Matthew Maule in *The House of the Seven Gables*.

ANSWER: Nathaniel **Hawthorne**

[10] This estranged husband of Hester Prynne is a doctor who is nicknamed "the Leech." He dies shortly after Reverend Dimmesdale dies.

ANSWER: Roger **Chillingworth** [or **Roger** Chillingworth] <Sherry Xie>/<ed. Jacob>

13. On the internet, Martin Freeman is popularly portrayed as a hedgehog, while this fellow actor is represented as an otter. For 10 points each:

[10] Identify this British actor who has played characters such as Ford in *12 Years a Slave* and Khan in *Star Trek: Into Darkness*.

ANSWER: Benedict **Cumberbatch**

[10] Cumberbatch starred as WikiLeaks founder Julian Assange in this 2013 thriller, which also starred Stanley Tucci and Alicia Vikander.

ANSWER: *The **Fifth Estate***

[10] Martin Freeman stars as Bilbo Baggins in The Hobbit trilogy, in which Cumberbatch plays the dragon Smaug and this character with a stronghold at Dol Guldur.

ANSWER: The **Necromancer** [or **Sauron**] <Wenzer Qin>/<ed. Sean>/<ed. Jacob>

14. This organelle's inner membrane is made up of numerous folds called cristae. For 10 points each:

[10] Name this double-membraned organelle that generates a majority of a cell's energy. This organelle is nicknamed the "powerhouse of the cell."

ANSWER: **Mitochondria**

[10] Mitochondria break down glucose in order to drive oxidative phosphorylation and create this compound, the cell's chemical energy "currency."

ANSWER: **ATP** [or **adenosine triphosphate**]

[10] This theory states that mitochondria were originally bacteria that were absorbed by other cells, explaining the origin of eukaryotic cells from prokaryotic cells.

ANSWER: **Endosymbiotic** theory [or **symbiogenesis**; or closely related terms, such as **endosymbiotic** theory] <Wenzer Qin/ed. David Dennis>

15. Walter Griffin won the design contest for this planned city, whose central lake is named for him. For 10 points each:

[10] Name this capital city of Australia known for its geometrically-designed neighborhoods.

ANSWER: **Canberra**

[10] Canberra is part of the Australian Capital Territory, which is entirely surrounded by this state. This state contains the highest point in Australia, Mt. Kosciuszko in the Snowy Mountains, along its border with Victoria.

ANSWER: **New South Wales**

[10] This most populous city in Australia and the capital of New South Wales hosted the Summer Olympics in 2000 and contains a famous Opera House.

ANSWER: **Sydney** <Alex Harmata>/<ed. Chris Chiego>

16. Name some abolitionists. For 10 points each:

[10] This former slave from Talbot County, Maryland published the newspaper *The North Star* and the autobiographies *My Bondage and My Freedom* and a “Narrative” of his life.

ANSWER: Frederick **Douglass** [Frederick Augustus Washington **Bailey**]

[10] In 1855, Douglass had a falling out with this other abolitionist, who published *The Liberator*. This man burned a copy of the Constitution after calling it “a Covenant with Death.”

ANSWER: William Lloyd **Garrison**

[10] This editor of the Alton, Illinois-based *The Observer* was killed in 1837 when a pro slavery mob attacked the warehouse where his printing press was stored.

ANSWER: Elijah **Lovejoy** [Elijah Parish **Lovejoy**] <Jonathon Amlong>/<ed. Jacob>

17. Cynthia von Buhler’s *Maestro Sartori Wants a Bit of Glory* features the man from this painting behind the skeleton of a frog. For 10 points each:

[10] Name this painting of a darkly-clothed man and his green-clad wife standing under a chandelier with one lit candle.

ANSWER: *The **Arnolfini Wedding*** [or ***Arnolfini Marriage***; or ***Arnolfini Portrait***; or ***Arnolfini Double Portrait***; or anything that mentions **Arnolfini** plus **Wife** and/or **Marriage**]

[10] This Flemish artist painted the *Arnolfini Wedding. Portrait of a Man in a Red Turban* is believed to be his self-portrait.

ANSWER: **Jan Van Eyck** [or **Johannes de Eyck**]

[10] Jan van Eyck collaborated with his older brother Hubert on this 12-panel altarpiece. Its lower left “Just Judges” panel has been missing since it was stolen in 1934.

ANSWER: **Ghent** Altarpiece [or ***Adoration of the Mystic Lamb*** or ***Adoration of the Lamb***] <David Dennis>/<ed. Seth Ebner>

18. The unfaithfulness of this character’s wife is discovered by his brother Shah Zaman, who shares his distrust of women. For 10 points each:

[10] Name this Persian king infamous for marrying and executing a new wife every night. His pattern is broken by Scheherazade.

ANSWER: **Shahryar**

[10] Shahryar is part of the frame story of this collection of folktales, which was translated by Richard Burton. In this collection, Scheherazade tells the story of Ali Baba and Aladdin.

ANSWER: *The **One Thousand and One Nights*** [or *The **Arabian Nights***; or *The **One Thousand and One Arabian Nights***; or ***Alf laylah wa laylah***]

[10] In the *Arabian Nights*, this character brings gifts from the King of Serendib to Harun al-Rashid. This sailor settles down in Baghdad after the last of his seven voyages.

ANSWER: **Sinbad** the Sailor [or **Sindbad**] <Sherry Xie>/<ed. Jacob>

19. This man killed the 108 suitors of his wife after stringing his bow and shooting an arrow through twelve axe heads. For 10 points each:

[10] Name the mythical king of Ithaca, who returned home to his wife Penelope after wandering for ten years after the Trojan War in a namesake epic by Homer.

ANSWER: **Odysseus**

[10] During his wanderings, Odysseus blinded this giant being by using a wooden stake. Odysseus introduced himself as “Nobody” to this son of Poseidon.

ANSWER: **Polyphemus**

[10] Polyphemus was a member of this race of one-eyed giants. Three of these creatures named Brontes, Steropes and Arges created Zeus’ thunderbolts.

ANSWER: **Cyclops** [or **Cyclopes**] <Dinis Trindade>/<ed. Jacob>

20. The First World War has been called “The Chemist’s War,” and Fritz Haber was one of its soldiers. For 10 points each:

[10] Several years prior to the start of the war, Haber developed a process to produce this compound. Domestic production of this compound helped free Germany from reliance on foreign nitrate deposits.

ANSWER: **ammonia** [or **NH₃**]

[10] Ammonia was transformed into the militarily significant chemical nitric acid by this process, also developed in Germany in the early 20th century.

ANSWER: **Ostwald** process

[10] During the War, Haber led German weaponization of this gas, which can itself be reacted with carbon monoxide to produce phosgene, another war gas.

ANSWER: **chlorine** [or **Cl₂**] <Alex Harmata/ed. David Dennis>

Extra

The collapse of this civilization led to the “Greek Dark Ages.” For 10 points each:

[10] Name this Bronze Age civilization in modern day Greece, whose language was discovered on the Linear B tablet.

ANSWER: **Mycenae** [**Mycenaean** civilization; or **Mycenaean** Greek culture]

[10] The Mycenaean culture eclipsed the Minoan culture on this Mediterranean island at the city of Knossos.

ANSWER: **Crete** [or **Kriti**; or **Krete**; or **Kriti**; or **Creta**; or **Kirid**; or **Candia**]

[10] This British archaeologist excavated the city of Knossos. Through the discovery of Linear A and Linear B, he determined the Minoan culture was separate from the Mycenaean culture.

ANSWER: Sir Arthur **Evans** <Cole Phinney>/<ed. Jacob>