

2020-2021 MOQBA Novice

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Packet 5

Tossups

1. **This quantity is proportional to the partial pressure of a gas above a liquid according to Henry's Law. Recrystallization relies on the fact that this quantity increases with temperature. Nitrate and sulfate salts generally have this property with respect to water, while most sulfides and oxides do not, according to its namesake "rules."** (*) Precipitates form when reaction products lack this property. A homogenous mixture is said to be saturated if the concentration equals this quantity. For 10 points, name this measure of the degree to which one substance dissolves in another.

ANSWER: solubility [or word forms, such as soluble] <Chemistry> <Jason Loy>/<ed. AK>

2. **An author who wrote in this language was convinced by a priest to burn the later two books in an intended trilogy about the selling of *Dead Souls*. A barber throws the title item of a story written in this language into a river before Kovalyov sees it praying in a church. In a different story in this language, A Very Important Person denies investigating the mugging of Akaky** (*) Akakievich, resulting in him returning as a ghost to steal the title garment. For 10 points, name this language used to write the stories "The Nose" and "The Overcoat" by Nikolai Gogol.

ANSWER: Russian [or Russki yazyk] <European/World Literature> <Ganon Evans>/<ed. JO>

3. **This figure is considered the true Messiah according to the Mandaean religion. This figure calls a crowd a "brood of vipers" in Matthew chapter 3, verse 7. The Gospel of Mark describes this person subsisting on "locusts and wild honey." One story about this man's death describes his objection to** (*) Herod's marriage to Herodias, after which his head was presented to Herod on a platter. This man's father was struck dumb for doubting a prophecy of his birth. For 10 points, name this son of Elizabeth and Zechariah who baptized Jesus on the river Jordan.

ANSWER: John the Baptist [prompt on John] <Religion> <Jason Loy>/<ed. LW>

4. **A 1913 march on Washington in support of this cause was organized by Alice Paul, who asked Ida B. Wells not to attend. The passage of a bill introduced by William Bright made Wyoming the first state to legalize this practice in 1869. Rival groups promoting this cause were led by** (*) Carrie Chapman Catt and Elizabeth Cady Stanton. For 10 points, name this cause enacted nationwide by the 19th Amendment to the Constitution, that allowed Americans to cast a ballot regardless of their gender.

ANSWER: women's suffrage [or women's right to vote] <American History> <Jason Loy>/<ed. DS>

5. **This politician noted that "nevertheless," Elizabeth Warren "persisted" when he silenced her for violating Senate Rule XIX [nineteen]. This politician defeated Alison Lundergan Grimes in an election and refused to hold a vote on the nomination of Merrick Garland to the Supreme** (*) Court by Barack Obama in 2016. This politician invoked the "nuclear option" to eliminate the filibuster during Neil Gorsuch's confirmation in 2017, and announced his intention to confirm a Supreme Court nominee prior to the 2020 presidential election after the death of Ruth Bader Ginsburg. For 10 points, name this current Senate Minority Leader from Kentucky.

ANSWER: Mitch McConnell <Current Events> <Aadi Karthik>/<ed. SB>

6. After tripping down the hills of Barton, a character in one of this author's novels has her ankle cared for by John Willoughby. In that novel by this author, Colonel Brandon offers Edward Ferrars a position in the clergy before marrying Marianne (*) Dashwood. George Wickham attempts to steal one of this author's characters by marrying his sister Georgiana; that character, Fitzwilliam Darcy, encounters Elizabeth Bennet at the beginning of a novel by this author. For 10 points, name this British author whose novels include *Sense and Sensibility* and *Pride and Prejudice*.

ANSWER: Jane Austen <British Literature> <Ganon Evans>/<ed. SB>

7. Israel destroyed a nuclear reactor developed under the government of this man, the purported author of the romance novel *Zabibah and the King*, in Operation Opera in 1981. This leader's first cousin carried out his al-Anfal campaign against the Kurds and was nicknamed Chemical Ali. This man was executed in (*) 2006 after Operation Red Dawn, during which American troops found him in a hole near Tikrit. For 10 points, name this former dictator of Iraq, who invaded Kuwait in 1990 to begin the First Gulf War.

ANSWER: Saddam Hussein [or Saddam Husayn Al-Tikriti] <World History> <Jason Loy><ed. DS>

8. In a myth, a man who boasted about his skill in this activity was killed by a scorpion sent by Gaia ["guy-uh"]. While doing this activity, Actaeon witnesses Artemis bathing, and as a result is killed by the dogs he used in this activity. A famous instance of this activity was organized by Meleager after Oeneus forgot to honor (*) Artemis at a festival, inciting her to summon the Calydonian Boar. Atalanta and Orion were known for their skill in, for 10 points, what activity involving the stalking and killing of animals in the wilderness?

ANSWER: hunting [or answers like "killing animals" until "killing" is read] <Mythology> <Lalit Maharjan>/<ed. LW>

9. The Gram-Schmidt process gives an orthonormal set of these objects, which are the inputs of a "triple product" that gives the volume of a parallelepiped defined by them. If no member of a set of these objects can be written as a linear combination of the others, the set is linearly independent. "Spaces" of these objects are studied in linear (*) algebra. The product of the magnitudes of two of these objects times the cosine of the angle between them is equal to their dot product. These objects are contrasted with scalars. For 10 points, name these objects with a magnitude and direction.

ANSWER: vectors [accept basis vectors] <Math> <Aadi Karthik>/<ed. CT>

10. A part of this composition features two violins alternating short, high notes with long, low notes to imitate the braying of a donkey; that part is called "People With Long Ears." Another part of this composition features a clarinet playing only two notes, a C followed by an A-flat, to imitate the title (*) bird's call. Two pianos play scale patterns in this composition's "Pianists" section. This work's "Fossils" section quotes from its composer's earlier tone poem *Danse Macabre*. For 10 points, name this suite with movements such as "The Elephant" and "The Swan," by Camille Saint-Saens.

ANSWER: *The Carnival of the Animals* [or *Le Carnaval des animaux*] <Auditory FA> <Aadi Karthik>/<ed. WG>/<ed. JO>

11. This novel's editor J.M. Stoddart erased homosexual references "which an innocent woman would make an exception to." A character in this novel is mistakenly shot by a hunting party after chasing a man nicknamed "Prince Charming" out of an opium den; that character, James, attempts to avenge his sister Sibyl (*) Vane, who committed suicide after a performance of *Romeo and Juliet*. This novel's protagonist stabs Basil Hallward after he sees the title object which turns more vile as its owner sins. For 10 points, name this only novel by Oscar Wilde.

ANSWER: *The Picture of Dorian Gray* [do NOT accept or prompt on "The Portrait of Dorian Gray"] <British Literature> <Ganon Evans>/<ed. SB>

12. **This character is fired after a gun falls out of his coat while performing at a children’s hospital. After stealing Penny’s psychiatric files from Arkham State Hospital, this character locks himself in a refrigerator. This character infiltrates a charity showing of *Modern Times* to confront his alleged father, Thomas (*) Wayne.** After realizing that his relationship with Sophie was a hallucination, this character confesses to murdering three men on a subway before shooting Murray Franklin on live TV. For 10 points, name this character, the subject of a 2019 character study by Joaquin Phoenix of Batman’s greatest enemy.

ANSWER: the Joker [or Arthur Fleck; or Arthur Fleck] <Popular Culture> <Ganon Evans>/<ed. SB>

13. **The mixing of these particles through interaction with the weak force can be described by the CKM matrix. Mesons are made of one of these particles and one of their antiparticles, while baryons are made of three of these particles. They’re not gluons, but these particles cannot be found individually due to color confinement. These particles, which can have charges of either (*) two-thirds or negative one-third, have six flavors, including “strange” and “charm.”** For 10 points, name these subatomic particles whose most common types are “up” or “down.”

ANSWER: quarks <Physics> <Vishal Kanigicherla>/<ed. AK>

14. **The remains of a leader of this movement, Martin Bucer, were burned by Mary I [“the first”]. The Marburg Colloquy was called to resolve a dispute between Huldrych Zwingli and another leader of this movement. The Council of Trent codified the “Counter-” response to this movement, whose early proponents criticized the sale of (*) indulgences.** This movement started on All Saints’ Day, 1517, when Martin Luther posted his 95 Theses in Wittenberg. For 10 points, name this historical period in which Christian churches broke away from the Roman Catholic Church.

ANSWER: Protestant Reformation [or the Counter-Reformation] <European History> <Jason Loy>/<ed. DS>

15. **This man resigned from his position with the Treasury during the Versailles Conference and spent the following summer writing a book criticizing the Treaty of Versailles. This author of *The Economic Consequences of the Peace* wrote another book that explained price fluctuations in equity markets through the idea of his namesake (*) “beauty contest,” and this economist also argued that aggregate demand outweighed aggregate supply in terms of total economic impact.** For 10 points, name this British economist known for his *General Theory*.

ANSWER: John Maynard Keynes <Social Science> <William Grossman>

16. **Ruth contemplates having an abortion in this play after her sister-in-law plans to use life insurance money to pay for medical school. In this play, a representative of the Clybourne Park Neighborhood Association opines that “people want to live among their own kind.” (*)** Mama Lena’s down payment on a house is wasted in this play after Walter loses money on a liquor store investment. This play’s title comes from a poetic interpretation of what happens to a “dream deferred.” For 10 points, name this play about the Younger family’s experience of housing discrimination in Chicago, written by Lorraine Hansberry.

ANSWER: A Raisin in the Sun <American Literature> <Jason Loy>/<ed. SB>

17. **This country's northernmost point is a disputed part of the Aves Ridge that it claims as an island, known as Isla de Aves. This country's Escalante River is a major area of production for Criolla cultivar cocoa beans. This country is home to the world's highest waterfall, (*) Angel Falls.** A major lake in this country is the site of a weather phenomenon known as Catatumbo lightning. That lake is home to one of the longest bridges in the world, the General Rafael Urdaneta Bridge. For 10 points, name this country where Lake Maracaibo is located, whose capital is Caracas.

ANSWER: Venezuela [or the Bolivarian Republic of Venezuela; or Republica Bolivariana de Venezuela] <Geography> <William Grossman>

18. **An inadequate amount of this substance is produced by the body in thalassemia. A variant of this substance is responsible for providing a certain gas to nitrogen-fixing bacteria and is prefixed with "leg-." A waste product resulting from the breakdown of this substance gives the skin its yellow color in jaundice and is called (*) bilirubin.** Carbon monoxide poisoning occurs because this protein binds to carbon monoxide much more tightly than to its target. This iron-containing protein is found in red blood cells. For 10 points, name this protein that transports oxygen from the lungs to body tissues.

ANSWER: hemoglobin [or leghemoglobin] <Biology> <Aadi Karthik>

19. *Note to players: description acceptable.*

The Rwandan Genocide began shortly after the presidents of Rwanda and Burundi both died in one of these events. UN Secretary-General Dag Hammarskjöld died in one of these events in Zambia while negotiating a cease-fire, prompting suspicion that he was assassinated. One of these events in 1959 that killed the popular singer (*) Buddy Holly is known as "The Day the Music Died." The deadliest of these events occurred in Tenerife after a collision on the runway. For 10 points, the Boeing 737 MAX was grounded after two of them suffered what kind of event?

ANSWER: plane crashes [accept any answers indicating accidents or disasters or otherwise bad things happening to airplanes or during air travel, accept answers indicating planes being shot down] <Miscellaneous History> <Conor Thompson>/<ed. DS>

20. **In this painting, a dog howls at a man beating a golden drum who was nearly cropped out during a 1715 move. A dead chicken in this painting represents the sigil of the Kloveniers, who commissioned this painting. A blue and yellow flag rises over an illuminated little girl in this painting, who stands next to a man in a red suit cleaning a (*) gun.** This centerpiece painting of the Rijksmuseum centers on a captain wearing a red sash named Frans Banning Cocq. For 10 points, name this group portrait of a Dutch militia, a masterpiece by Rembrandt.

ANSWER: The Night Watch [or De Nachtwacht; or The Militia Company of District II under the Command of Captain Frans Banninck Cocq or The Shooting Company of Frans Banning Cocq and Willem van Ruytenburch until Frans Banning Cocq is read, prompt after "Frans Banning Cocq" is read] <Visual Fine Arts> <Ganon Evans>/<ed. JO>

Tiebreaker. The losing side in this war created the Saint Patrick's Battalion from Irish defectors of the winning side. A "Bear Flag Republic" in this war enjoyed independence for three weeks before being annexed by the U.S. Abraham Lincoln introduced the Spot Resolutions to protest the legal basis for this conflict. This conflict's first fighting, known as the Thornton Affair, took place in the disrupted Nuances Strip outside Fort (*) Texas. It was ended by the Treaty of Guadalupe Hidalgo, which seized California and New Mexico. For 10 points, name this 1846 to 1848 war fought by the U.S with its southern neighbor.

ANSWER: Mexican-American War [or the Mexican War] <American History> <Doug Simons>/<ed. DS>

Bonuses

1. The splitting of light into different wavelengths in these objects is called dispersion. For 10 points each:
[10] Name these triangular objects, which split white light into a spectrum of component colors. Isaac Newton concluded that these objects do not create different colors of light.

ANSWER: dispersive **prisms** [or dispersion **prisms**]

[10] Dispersion of light occurs when the namesake indices of this phenomenon vary with the frequency of light. This phenomenon is the bending of light when it passes between media.

ANSWER: **refraction**

[10] In contrast to dispersive prisms, the Nicol prism modifies this property of incident light. This property of light is the orientation of its oscillations.

ANSWER: **polarization** [accept word forms like **polarizing**, but do not accept or prompt on “polarizability”] <Physics> <Jason Loy>/<ed. AK>

2. In a novel set in this state, Idgie recounts her relationship with Ruth to Evelyn at the title restaurant. For 10 points each:

[10] Name this state, the setting of Fannie Flagg’s *Fried Green Tomatoes at the Whistlestop Cafe*. In another novel set in this state’s town of Maycomb, Tom Robinson is killed after being wrongly convicted of raping Mayella Ewell.

ANSWER: **Alabama**

[10] Tom Robinson appears in this novel by Harper Lee, which also follows the childhood adventures of Scout Finch, her brother Jem, and their friend Dill Harris.

ANSWER: **To Kill a Mockingbird**

[10] In this 2015 novel by Lee, probably an earlier draft of *To Kill a Mockingbird*, Scout Finch tries to come to grips with her father Atticus’s racism. Jem has died of heart disease in this novel.

ANSWER: **Go Set a Watchman** <American Literature> <Jason Loy>/<ed. SB>

3. Answer the following about some of history’s greatest fires. For 10 points each:

[10] This emperor built a massive new palace, the Domus Aurea, or Golden House, following the Great Fire of Rome, which took place during his reign. Rome’s first persecutions of Christians began after this emperor blamed them for the fire.

ANSWER: **Nero** Claudius Caesar Augustus Germanicus

[10] Samuel Pepys’s [“peeps”] diary records the burning of this city in 1666. Christopher Wren rebuilt Saint Paul’s Cathedral in this city following that fire.

ANSWER: **London**

[10] The deadliest fire in American history, the Peshtigo fire, took place on the same night as this better remembered disaster. Contrary to popular myth, a cow owned by Catherine O’Leary probably did not actually start this event.

ANSWER: **Great Chicago Fire**

<Miscellaneous History> <Doug Simons>/<ed. DS>

4. Answer the following about Barbara Hannigan. For 10 points each:

[10] Hannigan is among the foremost opera singers in this vocal range, exemplified by the Queen of the Night in Mozart's *The Magic Flute*. It is the highest vocal range in standard Choral writing.

ANSWER: **Soprano**

[10] Hannigan primarily performs music from this century, including Gyorgy Ligeti's *Le Grand Macabre* and Bela Bartok's *Bluebeard's Castle*.

ANSWER: **20th** century [or the **1900s**]

[10] Hannigan has done numerous performances of Alban Berg's *Lulu*, which was composed using this method. In this method, every pitch class is placed into a tone row as a means to avoid a tonal center

ANSWER: **Twelve-tone** serialism [or **dodecaphony**; prompt on **serialism**] <Other Arts- Opera>
<William Bordowitz>/<ed. JO>

5. Due to soft clay ground and over-extraction of groundwater, this city has sunk as much as nine meters in some areas since the start of the 20th century. For 10 points each:

[10] Name this city, the capital of Mexico. Until 2016, it was also known as the *Federal District*.

ANSWER: **Mexico City** [or **Ciudad de México**; or the **City of Mexico**; or **CDMX**]

[10] Mexico City sits on the bed of what was once this lake. The city of Tenochtitlan sat on an island in the middle of this lake.

ANSWER: Lake **Texcoco** [or Lago de **Texcoco**]

[10] Tenochtitlan was one of the largest cities in the Americas at its peak. It served as the capital of this empire until Spanish conquest in 1521.

ANSWER: **Aztec** Empire <Geography> <William Grossman>

6. After this character falls into a sandpaper factory, Major Monogram replaces him with Planty the Potted Plant. For 10 points each:

[10] Name this character, an Organization Without a Cool Acronym member. In one episode, "inaction figures" are made of this character.

ANSWER: **Perry** the Platypus [or **Agent P**]

[10] Perry the Platypus fights this Drusselsteinen evil scientist whose namesake "Evil Incorporated" frequently causes havoc in the Tri-State Area. This character's daughter Vanessa is engaged to Ferb by the series finale of *Phineas and Ferb*.

ANSWER: Dr. Heinz **Doofenschmirtz** [or **Dr. D**; or **Professor Time**]

[10] *Phineas and Ferb* originally aired on this television channel, whose other late 2000s shows include *Wizards of Waverly Place* and *The Suite Life of Zack and Cody*.

ANSWER: The **Disney** Channel <Popular Culture> <Ganon Evans>/<ed. SB>

7. An artwork of this type, named for the town of Isenheim, depicts the martyrdoms of Saints Sebastian and Anthony flanking a depiction of the Crucifixion. For 10 points each:

[10] Name these often paneled religious artworks, which are placed behind their partial namesake structure in a Christian church. The Ghent one of these pieces was painted by the van Eyck brothers.

ANSWER: **altarpieces** [or the *Ghent Altarpiece*; or the *Isenheim Altarpiece*]

[10] The upper outermost panels of the Ghent Altarpiece features these two Biblical figures. These two people are nude in a Lucas Cranach the Elder painting where they share fruit from a tree.

ANSWER: **Adam** and **Eve**

[10] Jan van Eyck was better known for painting a wedding scene named after this family. The apparently pregnant bride wears a green dress, and a dog stands between the bride and groom.

ANSWER: **Arnolfini** [or the *Arnolfini Wedding*] <Visual Fine Arts> <Jason Loy>/<ed. JO>

8. Jean-Jacques Dessalines granted the citizens of this country freedom of religion, which had been denied them by Toussaint L'Ouverture. For 10 points each:

[10] Name this Caribbean country, the second to win independence from a European power after the United States. Rafael Trujillo [tru-he-yo] organized the Parsley Massacre against people from this country in 1937.

ANSWER: Republic of **Haiti** [or Republique d'**Haiti**; or **Ayti**; or Repiblik **Dayti**]

[10] Haiti won independence from this nation, which was distracted by the Napoleonic Wars at the time.

ANSWER: **France** [or the **French Republic**; or **Republique Francaise**]

[10] Members of this family ruled Haiti from 1957 to 1986. François established the Tontons Macoutes secret police, and Jean-Claude attempted to eradicate all pigs from Haiti in 1978 to stamp out a virus.

ANSWER: **Duvalier** [or Francois **Duvalier**; or Jean-Claude **Duvalier**] <World History> <Jason Loy><ed. DS>

9. In this story, the witnesses to the murder of Madame L'Espanaye and her daughter gave conflicting reports as to what language the murderer spoke. For 10 points each:

[10] Name this first modern detective story in which C. Auguste Dupin determines that the murders were committed by an orangutan.

ANSWER: "The **Murders in the Rue Morgue**"

[10] This author of "The Murders in the Rue Morgue" wrote of other C. Auguste Dupin cases in "The Purloined Letter" and "The Mystery of Marie Roget." He also wrote "The Raven."

ANSWER: Edgar Allan **Poe**

[10] Poe wrote of another murder investigation in this short story, in which the narrator is driven mad by a hallucination of an elderly man's heartbeat.

ANSWER: "The **Tell-Tale Heart**" <American Literature> <Jason Loy>/<ed. SB>

10. Answer the following about the work of Camillo Golgi. For 10 points each:

[10] His namesake stain allows a scientist to see one of these cells with a microscope. These cells have axons that are surrounded by a myelin sheath.

ANSWER: **neurons** [prompt on nerve cells]

[10] Golgi's stain earned him the Nobel Prize in Medicine with Santiago Ramon y Cajal, whose namesake bodies are found in this organelle. Its envelope contains its namesake "pore complexes."

ANSWER: **nucleus** [do NOT accept or prompt on "nucleolus"]

[10] Golgi also names the Golgi body, which is responsible for sorting of these biological molecules. These molecules consist of chains of amino acids.

ANSWER: **proteins** <Biology> <Aadi Karthik>

11. At the top of a hierarchy of this resource are caches that store recent pieces of information, and it can come in volatile and non-volatile forms. For 10 points each:

[10] Name this resource whose random-access form is accessed at similar speeds independent of data location and holds working data.

ANSWER: **memory** [accept random-access **memory**, or **RAM**]

[10] Non-volatile memory can be stored with these devices, as they keep data even after being powered off. These devices contain magnetic read/write heads which process data on platters.

ANSWER: **hard** disk **drives** [or **HDD**, or **disk drives**]

[10] This type of non-volatile memory has NAND and NOR subtypes, and can be found in USB drives.

ANSWER: **flash** memory <Computer Science> <Vishal Kanigicherla>

12. One of these structures in southern Ohio named for a serpent was once thought to be built by the Adena culture. For 10 points each:

[10] Name these earthwork structures built by Native Americans. One of the best known of these structures was built by the Mississippian culture at Cahokia.

ANSWER: burial **mounds** [or Cahokia **Mounds**]

[10] The signature architectural contribution of this culture was the longhouse, a residence that could hold up to 500 people. These people formed a five-, then six-nation confederacy in present-day New York.

ANSWER: **Iroquois**

[10] This culture based in the Four Corners region from about 900 to 1300 constructed cliff dwellings, such as those in Mesa Verde National Park. Their most common name was the Navajo for “ancient enemies.”

ANSWER: ancestral **Puebloans** [or **Anasazi**] <American History> <Jason Loy>/<ed. DS>

13. Raijin creates this phenomenon by playing *taiko* drums. For 10 points each:

[10] Name this sonic meteorological phenomenon produced by objects given to Zeus by the Cyclopes and by the hammer Mjollnir.

ANSWER: **thunder**

[10] This Norse god and son of Odin is the wielder of the aforementioned Mjollnir.

ANSWER: **Thor**

[10] Thunder is one of the domains of this early Hindu god, the most-mentioned god in the Rig Veda. This god slays the demon Vritra using the vajra, a weapon representing a thunderbolt.

ANSWER: **Indra** <Mythology> <Jason Loy>/<ed. LW>

14. A horse branded with the number 7 tramples Yvonne as she searches around one of these places named Popocatepetl [“pow-puh-ka-tuh-peh-tl”]. For 10 points each:

[10] Name these places, which title a Malcolm Lowry novel in which the alcoholic Consul Geoffrey remembers the Battle of Ebro on the Day of the Dead in Mexico.

ANSWER: **volcanoes** [accept *Under the Volcano*]

[10] The Stromboli volcano was the inspiration for this author’s Mt. Doom, which rises above Mordor. Bilbo Baggins embarks on a quest to throw the One Ring into Mt. Doom in this author’s *Lord of the Rings* trilogy.

ANSWER: J.R.R. **Tolkien** [or John Ronald Reuel **Tolkien**]

[10] This author described lava in a “royal snake” down the side of Mt. Etna in his collection *Sea and Sardinia*. This author’s exile to Italy inspired his radical depiction of sexuality in *Lady Chatterley’s Lover*.

ANSWER: D. H. **Lawrence** [or David Herbert **Lawrence**] <British Literature> <Ganon Evans>/<ed. SB>

15. In a book, this proof is labeled as Proposition *110.643, with a sub note listing that it is “occasionally useful.” For 10 points each:

[10] Name this fundamental cardinal algebraic proof from *Principia Mathematica* involving the sum of two of the same small number.

ANSWER: **1+1=2**

[10] *Principia Mathematica* was written by Alfred North Whitehead and this philosopher, who imagined a teapot floating between Earth and Mars and the burden of proof for stating it was there.

ANSWER: Bertrand **Russell** [or Bertrand Arthur William **Russell**, 3rd Earl Russell of Kingston Russell, Viscount Amberley of Amberley and of Ardsalla]

[10] *Principia Mathematica* takes its title from a series of books by this author which contains the first explanations for the law of motion, gravity, and other classical mechanics.

ANSWER: Isaac **Newton** <Philosophy> <Ganon Evans>/<ed. WG>

16. Many of this author's love poems are collected in *La Vita Nuova*. For 10 points each:

[10] Name this Italian author of the *Divine Comedy*, in which he selected Virgil and Beatrice as guides in the afterlife.

ANSWER: **Dante** Alighieri [or Dante **Alighieri**]

[10] Virgil leads Dante through the Nine Circles of Hell in this first section of the *Divine Comedy*, which is followed by *Purgatorio* and *Paradiso*.

ANSWER: **Inferno**

[10] This three-word admonition is inscribed for "ye who enter here" on the gate to hell in the *Inferno*.

ANSWER: "**Abandon all hope**" [or "**Abandon hope all**"] <European/World Literature> <Jason Loy>/<ed. JO>

17. This composer's only ballet was *The Creatures of Prometheus*. For 10 points each:

[10] Name this German composer, who was a major figure in the transition from the classical to the romantic era of music. He composed *Für Elise*.

ANSWER: Ludwig van **Beethoven**

[10] This Beethoven Symphony is in E-flat major, and has a second movement "funeral march." It was originally dedicated to Napoleon.

ANSWER: "**Eroica**" Symphony [Or Symphony **No. 3** in E-flat major; or Beethoven's **Third** Symphony]

[10] This final complete Symphony by Beethoven was the first example of a major composer using vocals, which in this case were taken from a Friedrich Schiller poem.

ANSWER: Symphony **No. 9** [or **Choral** Symphony; or Beethoven's **Ninth** Symphony] <Auditory FA> <William Grossman>

18. Every component of this list aligns to developing *sila*, *samadhi*, or *panna*. For 10 points each:

[10] Name this group of practices from an Eastern religion that the Fourth Noble Truth asserts will lead practitioners to end suffering.

ANSWER: the Noble **Eightfold Path**

[10] The Eightfold Path is followed by adherents of this religion founded by Siddharta Gautama. This religion has Theravada and Mahayana sects.

ANSWER: **Buddhism**

[10] The goal of Buddhism is to reach this state, or *bodhi* in Sanskrit. Both *bodhisattvas* and *arhats* have attained this goal by achieving *nirvana*.

ANSWER: **enlightenment** <Religion> <Jason Loy>/<ed. LW>

19. This ruler spent four months working in a Dutch East India Company shipyard learning Western ship design during his Grand Embassy in Europe. For 10 points each:

[10] Name this modernizing Romanov tsar of Russia. *Boyars* would carry a token indicating they had paid this ruler's beard tax.

ANSWER: **Peter the Great** [or **Peter I**; or **Pyotr Velikiy**; or **Pyotr I**; prompt on **Peter** alone]

[10] Peter the Great borrowed the idea of a beard tax from this English monarch's 1535 beard tax.

Thomas More and Thomas Cromwell fought over the passing of the Acts of Supremacy during this king's reign, which allowed him to found the Church of England and marry Anne Boleyn.

ANSWER: **Henry VIII** [the eighth] Tudor [prompt on **Henry**]

[10] This English privateer dubbed his victory at Cádiz "singeing the King of Spain's beard." This captain of the *Golden Hind* completed the second circumnavigation of the Earth.

ANSWER: Sir Francis **Drake** <European History> <Ganon Evans>/<ed. DS>

20. The change in this thermodynamic potential is defined as the maximum amount of work a system can perform at constant temperature, and one kind of it is named for Helmholtz. For 10 points each:

[10] Name this quantity, another variety of which is calculated by subtracting a system's product of temperature and entropy change from a system's enthalpy change.

ANSWER: **free energy** [or Gibbs **free energy**; or Helmholtz **free energy**]

[10] Chemical reactions with negative Gibbs free energy are spontaneous and also have this property, in which energy is released into the surroundings. It is not to be confused with exothermicity.

ANSWER: **exergonic** reactions [or **exergonicity**]

[10] Another way to determine whether a reaction is spontaneous is by using this law of thermodynamics, which states that a spontaneous process must always increase the total entropy of the universe.

ANSWER: **second** law of thermodynamics <Chemistry> <Jason Loy>/<ed. AK>