

Bulldog High School Academic Tournament 2017 (XXVI): Revenge of the BH-SAT

Written by Yale Student Academic Competitions (Stephen Eltinge, Adam Fine, Isaac Kirk-Davidoff, Moses Kitakule, Laurence Li, Jacob Reed, Mark Torres, James Wedgwood, Cathy Xue, and Bo You), Jason Golfinos, and Clare Keenan

Edited by Jacob Reed

Packet 1 Tossups

1. In metals, this process only occurs in the absence of Langmuir waves below the plasma frequency. The intensity of this process is given by the square of “ $n-1$ minus $n-2$, over $n-1$ plus $n-2$ ” according to the Fresnel equations. For a properly polarized input, this process does not occur at Brewster’s angle. Light propagating above the (*) critical angle is transmitted in optical fibers via the “total internal” type of this process. After the specular type of this process, the angle of the outgoing ray equals the angle of incidence. For 10 points, name this optical process in which light bounces off of surfaces like mirrors.

ANSWER: reflection [accept total internal reflection; accept specular reflection] <SE>

2. This man sponsored the industrial production of sugar from beets to avoid buying Caribbean-derived cane sugar. The term “guerrilla warfare” was coined to describe the resistance to one of this man’s invasions. The Rosetta Stone was discovered during a scientific expedition this man commissioned in (*) Egypt. This man issued the Berlin and Milan Decrees to set up an unsuccessful embargo. Most modern European legal systems are derived from this man’s namesake 1804 “Code.” This man tried to destroy England’s economy with the Continental System. For 10 points, name this emperor of France who was defeated in 1815 at Waterloo.

ANSWER: Napoléon Bonaparte [accept either name; or Napoléon I; or Napoleone di Buonaparte; accept Napoleonic Code; do not accept or prompt on “Napoléon III”] <JR>

3. This novel’s protagonist is challenged to a drink “by the corpse of Bacchus.” This novel’s protagonist leaves his lover’s dead body, which was “like saying goodbye to a statue,” and walks back to the hotel in the rain in its ending, which was rewritten 47 times. This novel’s main female character is accused of having no shame by her former friend Helen Ferguson, who works with Lieutenant (*) Rinaldi. Its main female character dies in Switzerland after its protagonist flees the Battle of Caporetto. The Italian Campaign of World War I is the setting of—for 10 points—what novel about the nurse Catherine Barkley and ambulance driver Frederic Henry by Ernest Hemingway?

ANSWER: *A Farewell to Arms* <JR>

4. Shortly before this man died, some “Extraordinary Chambers” were formed in partnership with the U.N. to assess his collaborators. This man’s orders were carried out at places like Choeung Ek. This man worked with Ieng Sary, Nuon Chea, and “Comrade Duch,” who operated a facility in a former high school usually known by a numerical abbreviation. This man called himself “Brother Number One” and ruled (*) Kampuchea starting in “Year Zero” after the overthrow of Lon Nol. This man had people who spoke foreign languages or wore glasses murdered by the millions at Killing Fields. For 10 points, name this genocidal leader of the Khmer Rouge and dictator of Cambodia.

ANSWER: Pol Pot [or Saloth Sar] <MK>

5. This man painted Medusa's severed head on the concave surface of a ceremonial shield. In one of his paintings, an old woman grips a cloth with both hands and stares fiercely at the title man, while the title girl shrinks back. This man painted a self-portrait as a severed head held by his student Cecco ["CHEH-koh"], in (*) *David with the Head of Goliath*. This painter's career only lasted about fifteen years, since he had to flee Rome in 1606 after killing a man in a fight. His heavy use of *chiaroscuro* was one of the formative forces in Baroque painting. For 10 points, name this Italian painter of *Judith Beheading Holofernes* and *The Calling of Saint Matthew*.
ANSWER: Caravaggio [or Michelangelo Merisi] <JR>

6. An intellectual movement in this country was documented in Louis Menand's *The Metaphysical Club*. A man from this country claimed that our perception of an object's *effects* is our entire perception of the object. Another man from this country tried to resolve conflict between religious and scientific approaches, which he called "tender-minded" and "tough-minded," and advocated evaluating the truth of a statement by its (*) "cash value." A man from this country founded a Laboratory School based on principles outlined in his book *Democracy and Education*. For 10 points, name this home country of pragmatist philosophers John Dewey and William James.
ANSWER: United States of America [accept either underlined part, or equivalents like U.S.A.] <JR>

7. Part of one of these things is sometimes sacrificed as *hafrashat*. After using this specific kind of thing, *Birkat haMazon* must be recited. A round one of these objects is typically prepared for Rosh Hashanah. Two of these objects must be covered while two candles are lit and the *kiddush* is said over the wine. These objects are blessed with the (*) "*haMotzi*" before being used. Shabbat is celebrated with two braided objects of this kind, which symbolize double manna. The leavened variety of it is forbidden on Passover. Challah is—for 10 points—what kind of food that is eaten as the body of Christ during Communion?
ANSWER: bread [accept loaves; accept challah; accept matzah; prompt on foods] <JR>

8. A poet who wrote in this language, known for his *Notebooks*, began a twenty-year "silence" in 1898, and wrote "The wind rises...We must try to live!" in his "The Cemetery By the Sea." A poem in this language claims "Nature is a temple where each living column, at times, gives forth vague words" where "Man passes...through forests of symbols." Edgar Allan Poe first became known in Europe through translations into this language. An (*) 1857 poetry collection in this language, including "Correspondences," "The Albatross," and three poems named "Spleen," kicked off Symbolism. For 10 points, name this language of Paul Valéry and Charles Baudelaire, who wrote *Les Fleurs du Mal*.
ANSWER: French [or Français] <JR>

9. Hyaluronic acid is the only G-A-G that does *not* form inside a structure named for *this* man. This man used potassium nitrate and silver dichromate to develop a namesake staining technique. This neuroscientist had an ongoing feud with his Nobel prize-mate Santiago Ramón y Cajal. O-linked, but *not* N-linked glycosylation takes place in a structure named for this man that's described by the "maturation of (*) cisternae" model. The vesicular-tubular cluster separates the endoplasmic reticulum from an organelle named for this man. For 10 points, name this Italian biologist who names the "apparatus" where proteins are packaged into vesicles.
ANSWER: Camillo Golgi [accept Golgi stain; accept Golgi body or Golgi apparatus] <AF>

10. During a quest for this item, a god's burning eyes and voracious appetite are explained as a result of not having slept or eaten for eight days. The Finnish god Ukko has an item analogous to this one that's called Ukonvasara. This item is used daily to revive a pair of animals whose names translate as "teeth grinder" and "teeth barer." A (*) gadfly bit Brokkr on the eye while he was making this object in a contest against the Sons of Ivaldi, so its handle is too short. This object was once stolen by the giant Thrymr, and a special belt and pair of gloves are required to wield this weapon. For 10 points, name this hammer wielded by Thor.

ANSWER: Mjölknir [accept answers like Thor's Hammer until "hammer"] <AF>

11. Subsidies for this good are provided under the HOPE VI plan and Section 8 of the Wagner–Steagall Act. Restrictions on selling this type of good were struck down in *Shelley v. Kraemer*. Harry Truman's Fair Deal resulted in a 1949 act named for this good. This good was provided in bulk at Cabrini–Green. A mass-produced version of this good was created by William (*) Levitt. This good is massively undersold and then oversold in "blockbusting." In the 1950s and '60s, this good's acquisition by black people sparked selloffs called "White Flight." For 10 points, name this good that names a cabinet-level department along with "Urban Development."

ANSWER: housing [accept house or any other reasonable equivalent, e.g. real estate; accept more specific answers like public housing; accept Department of Housing and Urban Development; prompt on property; prompt on Levittowns] <LL>

12. A film from this country features a town of lepers who once used metallic sands to make firearms. That film from this country begins with the protagonist being chased by a boar god that turns out to have been "corrupted" by a ball from Irontown. In another film from this country, the protagonist remembers the name of a now-developed riverbed, freeing a boy who had earlier been mobbed by (*) paper demons. In that film from this country, the protagonist cleans a sludgy river spirit while working for Yubaba in a haunted bathhouse. For 10 points, name this country home to Studio Ghibli, whose films *Princess Mononoke* and *Spirited Away* were directed by Hayao Miyazaki.

ANSWER: Japan [or Nihon; or Nippon] <JR>

13. A character in this musical named Zoltan Karpathy concludes that another character is a Hungarian princess after dancing with her. In this musical, one character tells another that he can go to "Hertford, Hereford and Hampshire." In this musical, the line "Tell me no dreams, filled with desire" is sung to Freddy in the song "Show Me." Julie (*) Andrews created the protagonist of this musical, who sings "I Could Have Danced All Night" and repeats phrases like "The rain in Spain stays mainly on the plain" to suppress her Cockney accent. For 10 points, name this Lerner and Loewe musical about Henry Higgins and Eliza Doolittle, an adaptation of George Bernard Shaw's *Pygmalion*.

ANSWER: My Fair Lady <LL>

14. In a short story by this author, the missionary Davidson kills himself on Pago Pago after realizing that he hasn't reformed the prostitute Sadie Thompson. One of this author's characters moves to Heidelberg in Germany to follow the example of the liberal headmaster Mr. Perkins. This author of "Rain" also wrote an autobiographical novel in which the protagonist is raised by the stingy (*) vicar William, marries Sally Athelny, and has a catastrophic affair with the waitress Mildred Rogers. For 10 points, name this English novelist who wrote about the club-footed man Philip Carey in *Of Human Bondage*.

ANSWER: W. Somerset Maugham <JR>

15. People from this region were depicted in a 1926 novel by Ricardo Güiraldes. A group of people from this region used a large knife called a *facón*. This region is home to the majority of large, *hacienda*-like ranches called *estancias*. It's not in Spain, but a university was founded in 1613 in this region's city of (*) Córdoba. Inhabitants of this region were depicted throwing weapons called *bolas* in José Hernández's epic poem *Martín Fierro*. The state of Rio Grande do Sul is in this region, which lies southeast of the Gran Chaco and north of Patagonia. Buenos Aires is found in—for 10 points—what grasslands region of Argentina home to many cattle raised by *gauchos*?

ANSWER: the pampas <MK>

16. Addition of an alkali metal to liquid ammonia will cause the resulting solution to have this color. Copper-two complexes, like its sulfate pentahydrate, usually take this color. An indicator named for this color is yellow in acidic conditions, and is commonly used for titrations near a pH of 7. The first modern (*) synthetic pigment took this color, and was made of iron bonded to cyanide ions. A common indicator is named "bromothymol this color," and in basic conditions, litmus paper turns from red to this color. For 10 points, name this color that has "cobalt" and "Prussian" shades.

ANSWER: blue [accept Prussian blue; accept cobalt blue; accept bromothymol blue] <AF>

17. *Warning: description acceptable.* The second title character is given this trait in the most famous poem from the manuscript *Cotton Nero A.x.*, which also includes the poems *Patience* and *Purity*. A character named for this trait is described by Brom Bones near Tarrytown in a story "written" by Diedrich (*) Knickerbocker and included in *The Sketch Book of Geoffrey Crayon*. After proposing to Katrina Van Tassel, Ichabod Crane sees a Hessian trooper who was put in this state by a stray cannonball. This state is averted by Lady Bertilak's girdle after Gawain puts the Green Knight in this state. For 10 points, name this bodily state of a ghostly horseman in "The Legend of Sleepy Hollow."

ANSWER: being headless [accept reasonable equivalents like having no head or beheaded; prompt on answers like "dead" or "a ghost"] <JR>

18. A king of this country married Madeleine of Valois and Marie of Guise, and died after this country's loss at the Battle of Solway Moss. A king from this country put forth the divine right of kings in his *Basilikon Doron*, and also wrote *Daemonologie*. A 1540s war fought for the hand of this country's queen was called the (*) Rough Wooing. That queen of this country supposedly wrote the Casket Letters and was killed for her role in the Babington Plot. This country's Reformation was led by John Knox, the founder of Presbyterianism. Elizabeth I executed this country's queen Mary Stuart. For 10 points, name this country that James I unified with its southern neighbor, England.

ANSWER: Scotland [or Alba] <JR>

19. The "perched" variety of these structures usually sit above their "confined" type. These structures are usually found in the phreatic zone below the vadose zone. The reduction of these structures' volume is a major cause of human-induced subsidence. Much of the Keystone Pipeline controversy has revolved around the gigantic (*) Ogallala one of these structures. Overuse of these structures can lead to saline "intrusion." When these structures are under pressure, their drainage wells are called "artesian." For 10 points, name these layers of porous rock that are filled up to the water table.

ANSWER: aquifers <JR>

20. **One of this composer's symphonies begins with the strings plucking an E minor chord with extra "G"s, followed by an octatonic ostinato in the oboe and bassoon. He used a septet of violin, bass, clarinet, bassoon, cornet, trombone, and percussion to accompany the Devil and a narrator in a collaboration with C.F. Ramuz. During his (*) "neoclassical" period, this composer wrote *The Soldier's Tale* and *Symphony of Psalms*. He used an extremely high bassoon solo to open a ballet in which a virgin dances herself to death as part of a pagan ritual. For 10 points, name this Russian composer whose music sparked a riot at the 1913 première of his ballet *The Rite of Spring*.**

ANSWER: Igor (Fyodorovich) Stravinsky <JR>

Tiebreaker

21. **These people are depicted on the ceiling of the Stanza della Segnatura, and they're the subject of the central three panels of the Sistine Chapel Ceiling. An orange-clad angel wields a sword above these people, who are crying, in a fresco from the Brancacci Chapel that lies to the left of the (*) *Tribute Money*. These people are depicted on both sides of the top row of the *Ghent Altarpiece*, and at the bottom left of the *Garden of Earthly Delights*. They're usually depicted holding branches or leaves to cover their nudity. For 10 points, name this married couple shown in Masaccio's *The Expulsion from the Garden of Eden*.**

ANSWER: Adam and Eve <JR>

Bonuses

1. For 10 points each—answer the following about the early string quartets of Joseph Haydn:

[10] In his Opus 20 quartets, Haydn placed *this* movement second, switching it with the slow movement. As this movement became faster, it gradually morphed into the scherzo.

ANSWER: minuets [or menuetto; accept “minuet and trio” or similar]

[10] Haydn ended three of the Opus 20 quartets with this kind of contrapuntal piece, which is sort of like a freer canon or round. These pieces are paired with preludes in *The Well-Tempered Clavier*.

ANSWER: fugues

[10] Haydn’s Opus 33 quartets were commissioned by a Grand Duke from this country. A composer from this country wrote the *Marche Slave* and the *1812 Overture*.

ANSWER: Russia <JR>

2. For an interior angle of a triangle, this function of the angle is given by the length of the opposite side over the length of the hypotenuse. For 10 points each:

[10] Name this trigonometric function that is the numerator of the tangent function. This function of 0 equals 0, unlike a related function that’s named for being this function of the complementary, or “co-” angle.

ANSWER: sine [do **not** accept or prompt on “cosine”]

[10] The sine of an angle can also be interpreted as the height of a point on *this* construction. This mathematical object is often used as a mnemonic to memorize values of sine and cosine at angles like pi-over-6 and 3-pi-over-2.

ANSWER: unit circle

[10] As a consequence of the Pythagorean theorem, there exists an important identity relating the *squared* sine and cosine of a given angle. If the *sine* of a given angle is “zero point 5,” then what is the cosine-*squared* of that angle?

ANSWER: 0.75 [zero point seven five] ($\sin^2\theta + \cos^2\theta = 1$, so $1 - 0.5^2 = \cos^2\theta$.) <JR>

3. The *Directorium* was created under this ruler’s reform chancellor, Count Haugwitz. For 10 points each:

[10] Name this ruler who was the first to be served by the ace diplomat von Kaunitz. The so-called “Diplomatic Revolution” happened under this ruler.

ANSWER: Empress Maria Theresa (Amalia Christina) [or Maria Theresia]

[10] Haugwitz was a major proponent of *this* two-word philosophy of rule, in which 18th-century authoritarian rulers tried to use cutting-edge philosophical ideas to improve the lives of their subjects.

ANSWER: enlightened despotism [or enlightened absolutism; or benevolent despotism]

[10] In the Diplomatic Revolution, Austria became allied with *this* power after being ditched by Britain. This kingdom was then basically ruled by Louis XV’s mistress Madame de Pompadour.

ANSWER: Kingdom of France <JR>

4. For 10 points each—answer the following about the Roman poet Sextus Propertius:

[10] Propertius was among the many poets sponsored by this man, who owned some famous Gardens. The *Georgics* were written in honor of this friend of Augustus.

ANSWER: Gaius (Cilnius) Maecenas

[10] Propertius invariably wrote in paired lines, which are thus given this name. A Shakespearean sonnet ends with a pair of lines that rhyme, which are thus called a “rhyming” one of *these* things.

ANSWER: couplets

[10] By 1700, English authors were obsessed with *this* kind of rhyming couplet, which was used in almost all of the works of Alexander Pope. Pope’s *Rape of the Lock* mocks this style, which was associated with the epic.

ANSWER: heroic couplet <JR>

5. You want to coat one substance with another one. Learn how to do that by answering these questions, for 10 points each.

[10] If the two substances are both metals, you can use *this* process, in which you reverse a galvanic reaction. This technique is often used to coat metals with chromium, which prevents corrosion.

ANSWER: **electroplating** [accept **electrodeposition**; prompt on **plating** or **deposition**]

[10] If you work with semiconductors, you could use a technique that deposits chemicals in *this* form onto their substrates. A quantity named for this kind of substance can be calculated with Raoult's law.

ANSWER: **vapors** [accept **gases**; accept chemical **vapor** deposition; accept "partial **vapor pressure**"; prompt on **CVD**]

[10] If you can't make a good semiconductor using chemical vapor decomposition, you can always try this technique, in which you repeatedly grow crystalline layers on top of already existing crystals.

ANSWER: **epitaxy** <AF>

6. For 10 points each—answer the following about the geography of Saudi Arabia:

[10] Saudi Arabia is separated from Egypt by this colorfully-named sea, which includes the gulfs of Aqaba and Suez.

ANSWER: **Red** Sea

[10] This region of Saudi Arabia lies just east of the Tihama on the east coast of the Red Sea. This region, which includes Mecca and Medina, is named for separating the Najd from the coast.

ANSWER: **Hijaz** ("al-hijaz" is Arabic for "the barrier.")

[10] Saudi Arabia's other coast is on this body of water, whose eastern terminus is at the Strait of Hormuz.

ANSWER: **Persian** Gulf [or al-khalij al-**farisi**; prompt on answers like "the **Gulf**"] <JR>

7. This poet described "dull sublunary lovers' love" after calling the "trepidation of the spheres" innocent. For 10 points each:

[10] Name this 17th-century English poet, who compared himself and his lover to the twin legs of a compass in "A Valediction: Forbidding Mourning." He also wrote some *Holy Sonnets* and erotic poems like "The Flea."

ANSWER: John **Donne**

[10] The compass conceit can be described as an "extended" one of *these* figures of speech, which *equates* two objects.

ANSWER: extended **metaphor** (Similes only *compare* two objects.)

[10] As part of the compass conceit, Donne concludes the "Valediction" by saying that his lover's "firmness" does two circle-related things to him. Name or describe either thing.

ANSWER: "makes my circle **just**" OR "makes me **end where I begun**" [accept rephrasings; accept any answer that involved **correcting** his circle or making his circle **perfect**; accept any answer involving an **ending that's the same as a beginning**, etc.] <JR>

8. This character enters to the slashing chords of the overture while singing "A cenar teco m'invitasti" ["ah CHAY-nar TAY-ko meen-vee-TAH-stee"]. For 10 points each:

[10] Name this character who is invited to dinner in the Act 2 graveyard scene. A description is fine.

ANSWER: the **statue** of the **Commendatore** [accept either underlined part]

[10] The statue of the Commendatore orders the title character to repent in *this* 1787 opera, which features the duet "Là ci darem la mano" ["LAH chee dah-REM lah MAH-noh"]. This opera's title womanizer is served by Leporello.

ANSWER: **Don Giovanni**

[10] The Commendatore's music is set in D minor, which Mozart also used in a piece of *this* kind. Mozart died before finishing his piece of this kind, which is pretty appropriate since this is a mass for the dead.

ANSWER: **requiem** <JR>

9. This series's tenth installment introduced the "sphere grid" levelling system. For 10 points each:

[10] Name this most famous series published by Square Enix.

ANSWER: **Final Fantasy** [prompt on **FF**]

[10] The *Final Fantasy* games are all *this* kind of game, in which you control a character that you equip and level up. *World of Warcraft* and *Runescape* are "massively multiplayer online" examples of these games.

ANSWER: **RPG** [or **role-playing** game; accept **MMORPG** or **massively multiplayer online role-playing game**]

[10] The iconic music for the *Final Fantasy* series has mostly been written by *this* man, who has thus been called the "Beethoven of videogame music."

ANSWER: Nobuo **Uematsu** <JR>

10. This program was formally announced in a 1964 speech at the University of Michigan. For 10 points each:

[10] Name this domestic program that included initiatives like the War on Poverty, Medicaid, and Medicare.

ANSWER: **Great Society**

[10] This U.S. President came up with the Great Society program. He succeeded John F. Kennedy and escalated the Vietnam War following the Gulf of Tonkin incident.

ANSWER: Lyndon B. **Johnson** [or **LBJ**]

[10] Another part of the Great Society was *this* early childhood education program for low-income children, which was launched by Jule Sugarman.

ANSWER: **Head Start** <LL>

11. In Hittite myth, the gods are often plagued by monsters of this type like Hedammu and Illuyanka. For 10 points each:

[10] Name these creatures, one of which is called Apep and nightly attacks the solar barge in Egyptian mythology. Aborigines revere a "rainbow" one of them, and the priestess of Delphi was named for one called Python.

ANSWER: giant **snakes** [accept **serpents**; prompt on **dragon**]

[10] After slaying the eight-headed serpent Yamata-no-Orochi, the Shinto kami Susano'o found one of *these* objects in its tail. Many kami had objects of this kind described as "of ten fists' length."

ANSWER: **swords** [accept **katanas**]

[10] A number of myth systems depict great horned serpents like Uncegilas as enemies of these creatures. In other stories, these creatures oppose the "underwater panthers" and kill evil whales.

ANSWER: **Thunderbirds** [prompt on answers like **birds**] <JG>

12. The enzyme G-6-P-D-H is the rate-limiting enzyme of this pathway. For 10 points each:

[10] Name this parallel pathway to glycolysis. It's divided into an oxidative phase that generates N-A-D-P-H and a non-oxidative phase that generates sugars.

ANSWER: **pentose phosphate** pathway

[10] The initial reactant of the pentose phosphate pathway is a phosphorylated version of *this* sugar. This simple sugar is produced from water and carbon dioxide in photosynthesis, and it's consumed in cellular respiration.

ANSWER: **glucose** [or **dextrose** I guess]

[10] In glycolysis, glucose is converted to *this* compound, which can then be dehydrogenated to produce acetyl-Co-A. This base's conjugate acid is the simplest acid to be both a ketone and a carboxylic acid.

ANSWER: **pyruvate** [accept **pyruvic acid**] <AF>

13. This poem opens with a claim to tell “things unattempted yet in prose or rhyme,” a line that Milton ironically plagiarized in *Paradise Lost*. For 10 points each:

[10] Name this epic poem in which Ruggiero is kidnapped by the sorceress Alcina.

ANSWER: **Orlando Furioso**

[10] *Orlando Furioso* was one of the many epic poems written in *this* language during the Renaissance. The Renaissance was kicked off by Petrarch’s poems in this language.

ANSWER: **Italian** [or **Italiano**]

[10] Luigi Pulci’s epic poem *Morgante* centers on one of *these* creatures. One of these creatures builds the Abbey of Thélème and another befriends Panurge in a particularly bawdy book from 16th-century France.

ANSWER: **giants** (Those are Gargantua and Pantagruel, from the book by François Rabelais.) <JR>

14. These beings are contacted through divination called *ifa*. For 10 points each:

[10] Name these spirits that are worshipped in Yoruba-derived religions like Candomblé.

ANSWER: **orishas** [or **orixas**]

[10] Candomblé, Santería, and Haitian Voodoo are all *this* kind of religion, which combines or identifies aspects of two or more older religions.

ANSWER: **syncretic** [accept word forms like **syncretism**]

[10] In Candomblé, the orisha of war, Ogun, is identified with this Christian saint. This patron saint of England legendarily slew a dragon.

ANSWER: Saint **George** <JR>

15. The eighth and last book of one of this man’s works discusses an educational program that includes training in music and gymnastics. For 10 points each:

[10] Name this philosopher who argued that men should rule over their children like kings in a book that classifies six kinds of “constitution.”

ANSWER: **Aristotle** [or **Aristoteles**]

[10] Aristotle’s *Politics* is often seen as a follow-up to *this* book of moral philosophy. In this book, Aristotle advocates virtue, or *arete*, and happiness, or *eudaimonia*.

ANSWER: **Nicomachean Ethics** [prompt on just **Ethics**]

[10] Unfortunately, Aristotle’s *Politics* also argues that some people are born to be *this* kind of person. That defense of *this* status was attacked by abolitionist thinkers like William Lloyd Garrison.

ANSWER: **slaves** [accept word forms like **slavery**] <JR>

16. In one painting, this man depicted a bunch of pies on the roof of a house, while a minuscule scene in the background shows the “blind leading the blind.” For 10 points each:

[10] Name this pioneering genre painter, who often depicted simply-clothed festivities filled with bagpipes, dancing, and more pies.

ANSWER: Pieter **Bruegel** the Elder

[10] Bruegel made a series of engravings on *this* subject for publisher Hieronymus Cock. Hieronymus Bosch or a follower made a circular painting of this subject that’s paired with smaller circles depicting the Four Last Things.

ANSWER: **The Seven Deadly Sins** [accept **The Seven Deadly Sins and the Four Last Things**]

[10] Following the innovations of Albrecht Altdorfer, Bruegel was a pioneer in *this* genre of painting, producing one of *these* paintings with *the Fall of Icarus*. These paintings show views of forests, rivers, and other natural stuff.

ANSWER: **landscapes** [accept **Landscape with the Fall of Icarus**] <JW>

17. Wu Sangui [“SAHN-gway”] led the Revolt of the Three Feudatories during this dynasty. For 10 points each:

[10] Name this dynasty that succeeded the Ming as China’s last imperial dynasty.

ANSWER: **Qing** dynasty

[10] After the rule of wise and competent men like the Kangxi [“kahng-shee”] Emperor, the Qing dynasty went into decline in *this* century. During this century, at least 20 million people were killed in the Taiping Rebellion.

ANSWER: **19th** century [or **1800s**]

[10] This emperor ruled from 1735 to 1796, stepping down early so as not to outdo his grandfather, Emperor Kangxi. This man ordered both the library *Siku Quanshu* and a Dzungar genocide called the Ten Great Campaigns.

ANSWER: **Qianlong** [“chyen-long”] Emperor <LL>

18. In a short story titled for this character trait, a murderer declares that an old woman might have had this trait “if it had been somebody there to shoot her every minute of her life.” For 10 points each:

[10] Name this character trait that turns out not to apply to the Bible salesman Manley Pointer in another story. This is the first title adjective in a short story in which The Misfit shoots the grandmother.

ANSWER: **good** [accept “**Good Country People**”; accept “**A Good Man is Hard to Find**”]

[10] Those stories, “Good Country People” and “A Good Man is Hard to Find,” were written by *this* Georgia-born Catholic short story writer.

ANSWER: (Mary) Flannery **O’Connor**

[5+5] O’Connor often depicted characters with disabilities, including Tom and Lucynell from “The Life You Save May Be Your Own.” For 5 points each, name Tom and Lucynell’s handicaps.

ANSWER: **one-armed** (Tom) and **deaf/mute** (Lucynell; accept either) [accept reasonable equivalents or descriptions; accept answers without attributions, but do **not** accept answers that attribute the disabilities incorrectly, e.g. “Tom is deaf and Lucynell has one arm”] <JR>

19. This man has been accused of ushering in the Roman Empire’s collapse by letting the Vandals cut off trans-Mediterranean trade by taking the Roman provinces in North Africa. For 10 points each:

[10] Name this Roman general who was assassinated on orders from Valentinian III. This general collaborated with Theodoric I to win the Battle of Chalons, a.k.a. the Battle of the Catalaunian Plains.

ANSWER: Flavius **Aetius**

[10] This nomadic people was defeated at the Battle of Chalons. Pope Leo the Great persuaded them to withdraw from Italy after a discussion with their leader Attila.

ANSWER: **Huns**

[10] This English historian, who called Aetius the “last of the Romans,” documented the Battle of Chalons and much, much more in his massive *Decline and Fall of the Roman Empire*, which was published beginning in 1776.

ANSWER: Edward **Gibbon** <JR>

20. For 10 points each—identify the following appearances of the number zero in electromagnetism:

[10] The electric field is always zero inside a static one of *these* materials, in which electrons can flow freely. These materials are contrasted with insulators.

ANSWER: **conductors** [do **not** accept or prompt on “semiconductors”]

[10] The sum of all the voltage drops around any closed path in a circuit must be zero according the “loop” rule, which is one of *this* pair of rules of circuit analysis.

ANSWER: **Kirchhoff**’s rules [or **Kirchhoff**’s laws]

[10] A properly constructed circuit has an end held at zero volts, which is referred to as “ground.” When the ground has a different voltage than the universal “Earth ground,” it is said to have *this* property.

ANSWER: **floating** [or **floating** ground] <SE>

Tiebreaker

21. This photographer's work was used as album art for John Eliot Gardiner's Bach Cantatas pilgrimage series. For 10 points each:

[10] Name this photographer for *National Geographic*, known for colorful, intense portraits like *Afghan Girl*.

ANSWER: Steve **McCurry**

[10] McCurry's portraits often have an extreme focus on the subject's face, since he decreases *this* length by widening the aperture. This distance goes up with a lens's *f*-number.

ANSWER: **depth of field** [or **DOF**]

[10] Recently, McCurry has more or less admitted to retouching his photos using *this* image editing software published by Adobe. This software's name has become a colloquial verb for "to digitally manipulate an image."

ANSWER: Adobe **Photoshop** <JR>