

**Bulldog High School Academic Tournament 2018 (XXVII): After such knowledge, what forgiveness?**

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**Packet 4 Tossups**

1. **This concept embodies the principle of *anicca* or *anitya*, one of three “Marks.” This concept, which does not directly affect one’s *atman*, can be mitigated by self-knowledge or *jnana*. Other paths away from this concept include *raja* and *bhakti*. The (\*) end of this concept, along with *artha*, *kama*, and *dharma*, is one of the four *Purusharthas* or main goals of human life in Hinduism. In Tibetan Buddhism, this concept is represented with the *Bhavachakra*, a wheel. The end of this cycle comes with *moksha*. One’s karma impacts—for 10 points—what cycle of death and reincarnation?**

ANSWER: samsara [prompt on any answer indicating a cycle, rebirth, reincarnation, or future lives] <JW/JR>

2. **One of these characters stops screaming “won’t, won’t, WON’T” after the protagonist unthinkingly tells him to “shut up!” A group of these characters are first met after the protagonist tickles a pear in a painting. One of these characters wears a massive pile of the hats a main character knits as part of a one-person organization (\*) “promoting” their “welfare.” In *Deathly Hallows*, one of these creatures is stabbed in the chest and buried with an epitaph emphasizing that he was “FREE,” since the sock thrown at him by Lucius Malfoy counted as giving him clothes. For 10 points, name these enslaved creatures from *Harry Potter*, which include Kreacher and Dobby.**

ANSWER: house-elves [or house-elf; accept Society for the Promotion of Elfish Welfare] <JR>

3. **Under the 17th Amendment, this state became the first to popularly elect a black senator, choosing Edward Brooke in 1966. A future president visited every town in this state on his way to defeating Henry Cabot Lodge, Jr. in a 1952 Senate election. George McGovern won only Washington, D.C. and this state in the 1972 presidential election. A governor of this state was criticized for granting furlough to convicted murderer (\*) Willie Horton. It was represented in the Senate for 46 years by Ted Kennedy, the younger brother of native son John F. Kennedy. For 10 points, name this state that was governed by Michael Dukakis and Mitt Romney from Boston.**

ANSWER: Massachusetts <SE>

4. **This man used square side aisles half as wide as the nave in two churches with grey-green structural elements against white walls. This man designed iron, stone, and wood chains for a project that adopts a Roman herringbone pattern to avoid the need for any scaffolding. He lost an early sculpture contest to Lorenzo (\*) Ghiberti [ghee-“BEAR”-tee], but working from drawn studies of his city’s baptistry, this artist was the first to systematize one-point linear perspective. Like Christopher Wren, he used a double-layer design for an octagonal brick structure that sits atop Santa Maria del Fiore [sahn-tah mah-REE-ah dell FYOH-ray]. For 10 points, name this Renaissance architect who built the dome of Florence Cathedral.**

ANSWER: Filippo Brunelleschi [broo-nuh-LEH-skee] <JR>

5. **One of this man’s novels opens by lengthily describing its central house, and declares that “this drama is neither a fiction nor a romance,” followed by the English declaration “*All is true*.” This man gave a detailed description of the perfume trade in a novel in which the Hulot [ew-“LOW”] family is targeted by the title bitter peasant relative. He wrote a novel set in the Maison (\*) Vauquer [voh-KAY], whose tenants include the criminal Vautrin [voh-TRAA]. In that novel by him, Anastasie and Delphine skip the funeral, attended by Eugène de Rastignac [ew-ZHEN duh rah-stee-NYAHK], of the title old noodle-maker. For 10 points, name this French realist who collected novels like *Cousin Bette* and *Père Goriot* [“pear” “gory”-OH] as *The Human Comedy*.**

ANSWER: Honoré de Balzac <JR>

6. This element's chloride is often found alongside barium chloride, from which it is separated by fractional crystallization. The discoverer of actinium, André-Louis Debierne, helped this element's discoverer isolate its metallic form. This element and zinc sulfide were used in watch dial paint that workers ingested by licking brushes. This heaviest alkaline (\*) earth metal is usually extracted from uranium or thorium ore. The discoverer of this element and polonium won Nobel Prizes in both Physics and Chemistry, becoming the first woman to win either. Marie Curie's death was caused by exposure to—for 10 points—what radioactive element with symbol Ra? ANSWER: radium [accept Ra before mentioned; do not accept or prompt on “radon” or “Rn”] <SE>

7. This philosophical tradition has recently become popular in the U.S. military due to a book by James Stockdale. A philosopher of this school devised a system of propositional logic that was more popular than Aristotle's until the early Middle Ages. A philosopher from this school emphasized the careful use of one's *prohairesis*, which is the only thing truly within our power. A *Handbook* and (\*) *Discourses* in this tradition were written by the former slave Epictetus. Nero's tutor Seneca espoused this school, which is exemplified by the *Meditations* of Marcus Aurelius. For 10 points, name this philosophical school that emphasized self-control and detachment from worldly things.

ANSWER: Stoicism <JW>

8. Operations on these objects that always have the same sign are called positive or negative definite. Quadratic forms are usually written as acting on these objects. A norm is defined on these objects. The volume of a parallelepiped can be expressed as a “triple” operation on three of these objects. If no member of a set of them can be written as a sum of multiples, or (\*) “combination,” of the others, they're linearly independent. Pairs of these objects are operated on by the dot product and cross product. They're often represented as matrix-like “rows” or “columns.” For 10 points, name these mathematical objects that have a magnitude and direction, unlike scalars.

ANSWER: vectors <JW>

9. This man's literary exploits include the poems *Sicily* and *Epiphanius*, as well as the tragedy *Ajax*. Cicero once countered defamation against this man by claiming “we have no more brilliant example of traditional piety among our youth.” This man called his second wife a “disease of my flesh” before exiling her to Pandateria. This husband of (\*) Scribonia supposedly cried out “Quinctilius Varus, give me back my legions,” following a disaster at Teutoburg Forest. Statilius Taurus and Marcus Agrippa led this man's forces at the Battle of Actium, ending his civil war with Cleopatra and Antony. For 10 points, name this adopted son of Julius Caesar, the first Roman emperor.

ANSWER: Gaius Julius Caesar Augustus [ or Octavian; or Gaius Octavius Thurinus] <SPQR>

10. In a D-flat major etude, this composer has the left hand cross over in the middle of each arpeggio to play every other note of the melody. Another of his pieces features a recurring high D-sharp that has to be reached by huge, fast jumps. He included “Au lac de Wallenstadt” in a collection divided into “Switzerland,” “Italy,” and “Third Year.” This composer of “Un sospiro” included a (\*) *Dante Sonata* in his *Années de Pèlerinage* and borrowed from fellow virtuoso Paganini in pieces like “La Campanella.” This composer of “Liebestraum No. 3” inspired a namesake “mania.” For 10 points, name this pianist who wrote the *Transcendental Etudes* and *Hungarian Rhapsodies*.

ANSWER: Franz (Ritter von) Liszt [or Liszt Ferencz] <JW>

11. **This poet described nurses passing by “the way gulls pass inland in their white caps” in a poem that claims “I am nobody; I have nothing to do with explosions.” This poet has “given my...history to the anesthetist and my body to surgeons” in a poem about flowers that “eat my oxygen.” A woman arises “out of the ash” and (\*) “eat[s] men like air” in another poem by this author of “Tulips.” Dr. Gordon gives electroshock therapy to Esther Greenwood in this author’s only novel. The line “You do not do, you do not do” begins her poem about a “man in black with a Meinkampf look.” “Lady Lazarus” was written by—for 10 points—what author of *The Bell Jar* and “Daddy”?**

ANSWER: Sylvia **Plath** <CK>

12. **This is the longest mountain chain that was formed alongside the Atlas Mountains by the collision of Laurentia and Gondwana. A culture from these mountains was the subject of a 2016 memoir by J.D. Vance. These mountains are home to a namesake instrument that, despite being plucked, is usually termed a (\*) “dulcimer.” Its basin is home to the largest bituminous and anthracite coal deposits in the world. Its Blue Ridge province is home to the Great Smoky Mountains. For 10 points, name this mountain chain of the eastern U.S., covered by an extremely long namesake “Trail.”**

ANSWER: **Appalachian** Mountains [accept **Appalachia**; accept **Appalachian dulcimer** or **Appalachian Trail**] <JR>

13. **Most of this city was demolished following an action by the Home Army, or AK. Uprisings in this city led to the Praga and Wola Massacres. Part of this city was systematically burned down while rebels hid in the sewers. In this city, the Z.O.B. and the Z.Z.W. fought a losing battle against troops under the command of Jürgen (\*) Stroop. Willy Brandt made a “knee-fall” in front of a monument in this city. This was the nearest major city to Treblinka. In 1943, this city’s Jewish ghetto revolted against Nazi occupation. After West Germany joined NATO, states behind the Iron Curtain signed a “Pact” in—for 10 points—what capital of Poland?**

ANSWER: **Warsaw** [accept **Warsaw Pact** or **Warsaw Ghetto Uprising**] <SPQR>

14. **In this novel, an outsider starts putting sticks with little flags in the ground, and the protagonist is taken to a colony of blind people who weave baskets. In it, a man fascinated with Abraham Lincoln is killed by a gang including the protagonist’s nephew Matthew. In this novel, a priest’s sister is called “sick” for selling moonshine and prostituting herself. At its opening, the protagonist gets a letter about (\*) Gertrude from fellow priest Theophilus Msimangu. The protagonist of this novel leaves Ndotsheni to see the trial of his son Absalom, who murdered Arthur Jarvis. Stephen Kumalo travels to Johannesburg in—for 10 points—what novel by Alan Paton?**

ANSWER: **Cry, the Beloved Country** <MK>

15. **In the foreground of a painting set in this city, light and dark patches of shadow from trees cover a woman in a floral hat leaning over her sister, who sits on a green bench wearing a blue and pink striped dress. A salon in this city where many modernists met was hosted by Gertrude (\*) Stein. At the far right of a painting depicting a bar in this city, a woman with an eerie greenish face stares outward. At a riverbank in this city, a woman is depicted with a monkey on a leash in a large Pointillist painting. For 10 points, name this city George Seurat painted in *A Sunday Afternoon on the Island of La Grande Jatte*.**

ANSWER: **Paris** <AF>

16. In a 10th-century poem, one of these creatures floods a river with her urine until a pair of gods escape by grabbing the branch of a rowan tree. The Proto-Germanic words *\*etanq* [AY-tah-NAHN] and *\*etunaz* [AY-too-NAHZ], meaning “glutton”, evolved into the traditional word for these creatures. One of these creatures has an enormous glove that some of the gods mistake for shelter during their journey to (\*) Utgard, where many of these creatures live. One of these creatures builds part of Asgard’s walls; another, named Thrym, steals the hammer of Thor. For 10 points, a Norse *jotun* [YOH-toon] is an example of what race of large, usually brutish humanoids?

ANSWER: **giant** [accept *jötunn* [YOH-toon] or *jötnar* [YOHT-nahr]] <EK>

17. A ruler of this dynasty supposedly climbed dozens of mountains to set down stone inscriptions of his deeds. This dynasty grouped its peasants into “five-family units” that were collectively punished for crimes. It was the first to standardize weights, measures, currency, and the small seal script. This dynasty was the first to adopt (\*) Legalist ideas and was accused by Sima Qian [SU-mah chyen] of burying Confucian scholars alive and burning their texts. This dynasty built the first Great Wall. Its founder ended the Warring States Period, was buried with a terracotta army, and was named Shi Huangdi [shur-HWAHNG-dee]. The First Emperor founded—for 10 points—what Chinese dynasty that preceded the Han?

ANSWER: **Qin** [cheen] Dynasty [do not accept or prompt on “Qing”] <SPQR>

18. A photomultiplier tube that registers a signal without actually detecting a photon records this kind of “count.” This adjective describes a substance whose constant energy density leads to an exponentially growing cosmic scale factor. The cosmological constant describes one substance known by this adjective, while (\*) MACHOs and WIMPs are proposed examples of another. A form of energy driving the accelerating expansion of the universe is described by this adjective, as is a substance forming 27% of the observable universe. For 10 points, give this adjective describing exotic matter that does not interact with radiation, and hence does not emit detectable light.

ANSWER: **dark** [accept **dark** count or **dark** energy or **dark** matter] <SE>

19. This novel describes crowds of people gathering around puddles of spilt wine to drink off the street. A character in this novel uses her knitting to plot the deaths of a family. Its protagonist works under a man who decides not to propose to a doctor’s daughter after hearing Jarvis Lorry’s advice. In this novel, Gaspard leaves a note signed by “Jacques” after he kills the Marquis of St. (\*) Évremonde for running over his child. It ends with the thought “it is a far, far better thing that I do, than I have ever done.” The barrister Sydney Carton takes the place of Charles Darnay in—for 10 points—what Charles Dickens novel that begins “It was the best of times, it was the worst of times”?

ANSWER: *A Tale of Two Cities* <MK>

20. *Description acceptable.* Many early analyses of these properties were conducted by Max Perutz and John Kendrew. For some molecules, part of this property can be analyzed with HPLC after an Edman degradation. This property is studied with circular dichroism. The shockingly short time scale on which this property is finalized is the subject of Levinthal's paradox. Types of this molecular property include (\*) “globular” and “fibrous,” and it’s represented by ribbon diagrams. Part of this property is determined by chaperonins, as well as hydrophobic effects and disulfide bridges that influence “folding.” An amino acid sequence determines the “primary” aspect of—for 10 points—what 3-D shapes taken by proteins?

ANSWER: **protein structure** [accept just **structures** after the word “proteins”; accept descriptions like “how a **protein** is **folded**” until “folding”; accept **native state**; accept **primary structure** until “primary”; accept **secondary**, **tertiary**, or **quaternary structure**; prompt on conformations] <CK/JR>

*Tiebreaker*

21. In a book by this man, the narrator's aunt asks him to bring a copy of Cherbuliez's ["share"-boo-LYAY's] novel *Paule Méré* to Rome. In another book by this man, the reading of a story about Griffin's ghost prompts Douglas to share a manuscript by a former governess. He wrote a novella in which the title character's kid brother Randolph insists that Schenectady is better than (\*) Europe. One of his title characters goes to the Château de Chillon [shaa-TOH duh shee-"YAWN"] with Winterbourne, who sees her at the Colosseum before she dies of Roman Fever. He wrote a novella in which Miles and Flora are haunted by the ghosts of Miss Jessel and Peter Quint. For 10 points, name this author of *Daisy Miller* and *The Turn of the Screw*.

ANSWER: Henry James <MK/JR>

## Bonuses

1. Species with this relationship will usually have some synapomorphies in common. For 10 points each:

[10] Name this relationship that's indicated whenever two species branch from the same point on a phylogenetic tree. Members of a species must also have this relationship to a single organism; a description is fine.

ANSWER: **sharing** a common **ancestor** [accept rough equivalents like **they descend from the same species**]

[10] Another word for a synapomorphy is a trait with *this* property, meaning they come from the same ancestral trait. Whale fins have this property with respect to mammal paws and human hands.

ANSWER: **homologous** [accept word forms like **homology**]

[10] Convergence can lead to false "homologies." Name *either* of the major kinds of false clades that can result; one doesn't include the most recent common ancestor, while the other does but doesn't include all of its descendants.

ANSWER: **polyphyletic** OR **paraphyletic** <JR>

2. This man wrote a play about the anarchist Jack Tanner, who works with the League of the Sierra. For 10 points each:

[10] Name this Irish socialist playwright who wrote *Man and Superman*. In another of his plays, the title woman holds the title militaristic rank in the London Salvation Army.

ANSWER: (George) Bernard **Shaw** (That play is *Major Barbara*.)

[10] Patricia Campbell originated the role of the protagonist of *this* Shaw play, in which the Cockney woman Eliza Doolittle learns etiquette from Henry Higgins.

ANSWER: **Pygmalion**

[10] The title character of Shaw's play *Cashel Byron's Profession* does this activity for a living. In *The Sun Also Rises*, Jake is contrasted with Robert Cohn, who was a champion at this sport in college.

ANSWER: **boxing** [accept **prizefighting**] <MK>

3. Applying this law to airflow above and below an airplane wing is often used to explain part of the origin of lift. For 10 points each:

[10] Name this law of fluid dynamics, according to which a faster-moving fluid exerts a lower pressure on its surroundings.

ANSWER: **Bernoulli's** principle [or **Bernoulli's** law]

[10] When air splits to flow above and below an airfoil, the point where the local flow velocity is zero is known by this name. A pitot [pi-TOH] tube measures a type of pressure known by this term to determine fluid velocity.

ANSWER: **stagnation** point [or **stagnation** pressure]

[10] Bernoulli's principle results from overall conservation of this quantity. The many types of this quantity include a "rest" type that is equal to "mass times the speed of light-squared."

ANSWER: total **energy** [prompt on **E**] <SE>

4. This country's president and vice president were assassinated in the Ten Tragic Days of February 1913. For 10 points each:

[10] Name this country that saw a massive revolution in the early 20th century. It had earlier been led by Antonio López de Santa Anna.

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

[10] Mexico's current constitution was adopted in *this* year near the end of the Revolution. The book *Ten Days that Shook the World* recounts the fall of Alexander Kerensky in this year, which also saw a revolution in February.

ANSWER: Constitution of **1917**

[10] This war of the late 1920s was sparked by an attempt to enforce parts of the 1917 constitution. Thousands of peasants died in this war, after which the Catholic Church lost most of its power in Mexico.

ANSWER: **Cristero** War [or La **Cristiada**] <JR>

5. For 10 points each—answer the following about the philosophy of Baruch Spinoza.

[10] Spinoza thought that there was only one substance, which he identified with both nature and God. That monism was in opposition to *this* position most famously held by René Descartes.

ANSWER: substance **dualism** [or Cartesian **dualism**]

[10] Spinoza's *Ethics* was modeled after the kinds of proofs Euclid used in *this* branch of mathematics.

ANSWER: **geometry**

[10] Spinoza held that there were this many kinds of knowledge. The American philosopher Charles Sanders Peirce ["purse"] generally came up with concepts in sets of this number.

ANSWER: **three** [accept Peircian **trichotomy** or **triad**] (The types are imagination, reason, and intuition.) <JR>

6. This artist's brother Pietro painted a series of frescoes depicting the Passion for the lower Church of St. Francis in Assisi. For 10 points each:

[10] Name this painter who decorated Siena's Palazzo Pubblico with frescoes like *Effects of Good Government in the City* and *Effects of Bad Government in the Country*.

ANSWER: Ambrogio **Lorenzetti** (The work as a whole is called *The Allegory of Good and Bad Government*.)

[10] The Lorenzetti brothers worked in this century, which is when Giotto decorated the Arena Chapel.

ANSWER: **14th** century [or **1300s**; or **trecento**]

[10] Both Lorenzettis broke away from, but were highly influenced by the gilded icons and other artworks of this Greek-speaking Christian Empire of the Eastern Mediterranean.

ANSWER: **Byzantine** Empire [or **Eastern Roman** Empire; do **not** accept or prompt on "Roman Empire"] <JR>

7. The Not-I-bird serves as a harbinger of death in a story told to the Praise Singer in this play. For 10 points each:

[10] Name this play, in which a tone-deaf colonial administrator wears a sacred *egungun* costume to a masked ball.

ANSWER: ***Death and the King's Horseman***

[10] *Death and the King's Horseman* was written by this contemporary playwright and Nobel laureate.

ANSWER: Wole **Soyinka** [or Akinwande Oluwole Babatunde **Soyinka**]

[10] Aside from his plays, Soyinka is well-known for works in *this* genre like *Aké: The Years of Childhood*. Maya Angelou's many works in this nonfiction genre include *I Know Why the Caged Bird Sings*.

ANSWER: **memoirs** [or **autobiography**] <MK>

8. This man defeated Joseph Bonaparte's troops at the Battle of Vitoria. For 10 points each:

[10] Name this English Duke who commanded the winning forces at Waterloo.

ANSWER: Duke of **Wellington** [or Arthur **Wellesley**]

[10] Wellington had earlier led the allied forces during *this* phase of the Napoleonic Wars, which, like the disastrous Russian campaign, started from an attempt to enforce the Continental System, this time on Portugal.

ANSWER: **Peninsular** War

[10] This marshal led the French cavalry at several battles of the Peninsular War. At Waterloo, Napoleon's forces were led by himself, Marshal Grouchy, and this other marshal, who was infamously executed after the battle.

ANSWER: Michel **Ney** <JR>

9. For 10 points each—answer the following about Ecuador, the only nation with a consulate in New Haven:

[10] Ecuador’s current president is this democratic socialist, the only paraplegic world leader. He was elected to succeed Rafael Correa in 2017.

ANSWER: Lenin (Boltaire) **Moreno** (Garcés)

[10] Moreno was appointed as Special Envoy to the U.N. on Disability and Accessibility by *this* Secretary-General, who succeeded Kofi Annan.

ANSWER: **Ban** Ki-moon

[10] Moreno governs from this capital of Ecuador.

ANSWER: **Quito** <IKD>

10. This poem’s metrical scheme was inspired by Elias Lönnrot’s *Kalevala*. For 10 points each:

[10] Name this 1855 epic poem in 22 books that ends with the title man welcoming “pale-faced” Christian missionaries to his village.

ANSWER: *The **Song of Hiawatha***

[10] *The Song of Hiawatha* was written by this American poet, who also wrote “The Wreck of the Hesperus” and “Paul Revere’s Ride.”

ANSWER: Henry Wadsworth **Longfellow**

[10] In Lewis Carroll’s parody of Longfellow’s poem, Hiawatha disastrously attempts to perform this action with a rich family. Susan Sontag claimed that this action makes us chronically voyeuristic in a book *On [it]*.

ANSWER: **photography** [accept word forms and clear synonyms; accept *Hiawatha’s Photographing*; accept *On Photography*] <MK>

11. For 10 points each—answer the following about Johann Strauss [rhymes with “house”] Jr.:

[10] Strauss is often called the “king” of this ballroom dance. His works in this genre include *On the Beautiful Blue Danube*.

ANSWER: **waltz**

[10] Strauss also wrote two polkas for strings played entirely with this technique, which is cancelled by the marking *arco*.

ANSWER: **pizzicato** [accept **plucking** the strings]

[10] Strauss’s *Tales from the Vienna Woods* includes a virtuoso part for this plucked string instrument. The psaltery and autoharp are instruments in this family, which is sort of like a guitar without a neck and a lot of extra strings.

ANSWER: **zithers** <JR>

12. For 10 points each—answer the following about wars of the Roman Republic:

[10] The Roman armies were slaughtered at Lautulae and Caudine Forks during *this* series of three wars in the fourth-century B.C. These wars prompted construction of the Appian Way to secure Campania.

ANSWER: **Samnite** Wars

[10] This king of Epirus was contracted by Tarentum to fight the Romans in the south of Italy. He became notorious for winning battles at enormously high cost, which negated the impact of the victories.

ANSWER: **Pyrrhus** of Epirus [accept **Pyrrhic** victory or **Pyrrhic** war]

[10] In this century-long sequence of wars Rome fought Carthage for the control of the Mediterranean.

ANSWER: **Punic** Wars <SPQR>



13. Due to its slowness, this algorithm is commonly used to encrypt shared “keys,” which are then used to encrypt actual data. For 10 points each:

[10] Name this encryption algorithm named for three computer scientists. Its first two steps are computing the product of two large primes, then computing Carmichael’s totient function for that product.

ANSWER: **RSA** cryptosystem [or **Rivest–Shamir–Adleman** algorithm]

[10] RSA works due to this Frenchman’s “little” theorem. His “last” theorem, which took over 300 years to prove, states that there is no solution to “ $x$ -to-the- $n$  plus  $y$ -to-the- $n$  equals  $z$ -to-the- $n$ ” for integers  $x$ ,  $y$ ,  $z$  and  $n$  greater than 2.

ANSWER: Pierre de **Fermat** [accept **Fermat**’s Little or Last theorem]

[10] RSA won’t be secure once quantum computers become viable, unlike an encryption protocol known as the quantum form of *this* process. The expected value of this process is the subject of the St. Petersburg paradox.

ANSWER: quantum **coin flipping** [accept descriptive answers like **coin toss**] <AF>

14. For 10 points each—answer the following about some of the greatest musicians...in Greek mythology:

[10] This young woman’s father Alcinoos rules Phaeacia [fee-AY-shuh], where he employs the bard Demodocus. She first appears in Book 6 of the *Odyssey* when she provides spare clothes for a shipwrecked Odysseus.

ANSWER: **Nausicaa** [naw-sih-KAY-ah] or [nah-“SICKY”-ah]

[10] This legendary bard uses his beautiful music to convince Hades that his dead wife Eurydice should be resurrected, but accidentally loses her forever on their way out of the underworld.

ANSWER: **Orpheus**

[10] The bardic satyr [“SAY”-tur] Marsyas [MAHR-see-uss] undergoes this fate when he loses a music contest to the god Apollo. According to tradition, the namesake founder of Manichaeism [“MANIH”-KEE-“ism”] was given this punishment before he was crucified.

ANSWER: they are **skinned** alive [or obvious equivalents; prompt on descriptions of **being made into a drum**] <SPQR>

15. For 10 points each—answer the following about the exotic bonding properties of boron:

[10] Borane compounds of boron and hydrogen often form unusual bonds named for having this many “centers.” Those bonds contain an empty non-bonding orbital.

ANSWER: **three** [accept **three**-center two-electron bond]

[10] Being a group-13 element, boron also has three valence electrons, which often renders it incapable of satisfying *this* principle. This rule predicts chemical bonding by assigning eight electrons to each atom.

ANSWER: **octet** rule

[10] The central boron atom of boron trifluoride is extremely electron-deficient, making BF<sub>3</sub> a good example of *these* compounds, which are defined as electron-pair *acceptors*.

ANSWER: **Lewis acids** [prompt on **acids**] <SE>

16. This character’s inner turmoil is mirrored by massive flooding in the fictional valley of Wahlheim. For 10 points each:

[10] Name this title character of a 1774 novel. He commits suicide and is buried under a linden tree after unsuccessfully pursuing Albert’s fiancée.

ANSWER: Young **Werther** [accept *The Sorrows of Young Werther* or *Die Leiden des jungen Werthers*]

[10] Young Werther was created by Johann Wolfgang von Goethe [yoh-hahn vulf-gahng fon GUR-tuh], who’s best known for a play about this scholar, who strikes a bargain with the devil Mephistopheles.

ANSWER: Dr. Heinrich **Faust**

[10] Goethe’s Werther is often associated with this proto-Romantic literary movement. This movement’s name is often translated with the English phrase “storm and stress.”

ANSWER: **Sturm und Drang** <MK>



17. One participant in this activity tells another that he wants to perform “one meaningful deed” while in a confessional. For 10 points each:

[10] Name this activity that’s the main motif of a 1957 film starring Max von Sydow. After this activity is finished, the prophetic juggling actor Jof sees von Sydow’s character performing the Dance of Death on a nearby hill.

ANSWER: a game of **chess**

[10] That film was directed by a man with this last name. An unrelated actress with this last name starred in *Notorious* and *Casablanca*.

ANSWER: **Bergman** (Ingmar and Ingrid Bergman; the film is *The Seventh Seal*.)

[10] In *Casablanca*, Ingrid Bergman starred opposite this American actor, who says “Here’s looking at you kid.” He also starred in *The Maltese Falcon*, where his character talks about “The stuff that dreams are made of.”

ANSWER: Humphrey (DeForest) **Bogart** <JR>

18. Sir Humphrey Gilbert, who drowned in Newfoundland, originally sponsored the foundation of this colony. For 10 points each:

[10] Name this colony whose second iteration was led by John White. This colony’s settlers may have integrated into the Croatoan tribe.

ANSWER: **Roanoke** Colony [prompt on “The Lost Colony”]

[10] This half-brother of Sir Humphrey Gilbert gained the charter and financed the Roanoke Colony. He’s the namesake of the capital of North Carolina.

ANSWER: Sir Walter **Raleigh**

[10] Sir Walter Raleigh may have founded the Roanoke colony as a base for this activity, which is how Sir Francis Drake was best known to Spain.

ANSWER: **piracy** [accept **privateering**] <SPQR>

19. This group’s member Victor Willis sang about “sail[ing] the seven seas” in their hit “In the Navy.” For 10 points each:

[10] Name this music group of the 1980s whose other hits included “Macho Man.”

ANSWER: **Village People**

[10] “In the Navy” was the Village People’s follow-up to *this* song, which tells a “young man” that he can “hang out with all the boys” at the title institution. This song can be danced by using your arms to make the title letters.

ANSWER: “**Y.M.C.A.**”

[10] The Village People was originally created to exploit gay audiences by drawing on stereotypical Greenwich Village getups, like a soldier, an “Indian,” and a “Leather Man.” Describe any of the other original personae.

ANSWER: **cowboy** OR **construction** worker OR **cop** [or **policeman** etc.] OR **sailor** [or **seaman** etc.] <MK>

20. In this religion’s *navjote* ceremony, a child receives a *sudreh* and a *kushti*. For 10 points each:

[10] Name this dualistic religion of Persian origin, whose god of wisdom is known as Ahura Mazda.

ANSWER: **Zoroastrianism**

[10] These are the primary texts of Zoroastrianism. They include the *Yasnas* and the *Afrinagans*.

ANSWER: **Avestas** [or **Zend Avesta**]

[10] A key concept in Zoroastrianism is *Asha*, which is usually translated as *this* English word. This concept is opposed with *druj*.

ANSWER: **truth** [accept **order**; accept clear equivalents; prompt on **knowledge**, **learning**, or similar answers; prompt on **genius** or **righteousness**] <MK>

*Tiebreaker*

21. For 10 points each—answer the following about meiosis:

[10] Meiosis creates four cells with this genetic property, meaning they only have one of each chromosome. These cells are contrasted with diploid cells, which have two of each chromosome.

ANSWER: **haploid**

[10] During prophase I of meiosis, chromosomes exchange genetic material by “crossing over.” This is the term for the binding-together of chromosomes that allows crossing-over to happen.

ANSWER: **synapsis**

[10] After the separation of homologous chromosomes, sister chromatids are separated in *this* phase of meiosis.

ANSWER: **anaphase II** [prompt on partial answer] <JR>