

**Minnesota Undergraduate Tournament 2015: My Torah Portion was an Archie Comic**  
**Questions by Rob Carson, Mike Cheyne, Andrew Hart, Gautam Kandlikar, Shan Kothari, Bernadette Spencer, Cody Voight, and special guest Ike Jose**  
**Packet 10: Tossups**

1. A state prosecutor in Tomsk, Russia filed a petition to ban a commentary on this work for inciting hatred. This work explains worldly existence with the metaphor of a tree, which must be felled by the sword of detachment. Scholars like Ramanuja claim that this work has three divisions corresponding to karma, bhakti, and gnana yoga. A commentary titled for this work (\*) "As It Is" was produced by A. C. Bhaktivedanta Swami Prabhupada. This work forms adhyayas 25 through 42 of the Bhishma Parva of a larger work, and is set before the first day of fighting in the Kurukshetra War. It begins as the third Pandava expresses to his charioteer his hesitation to kill enemy soldiers. For 10 points, name this section of the *Mahabharata* in which Krishna explains the nature of dharma and reality to Arjuna.

ANSWER: the *Bhagavad Gita* [accept *The Song of the Lord* or similar answers; prompt on "Gita"; do not accept or prompt on "Mahabharata"]

2. This composer used a plagal half-cadence to end the exposition of one piece's first movement. Schoenberg orchestrated this man's *Piano Quartet No. 1* and wrote an essay about this man "the Progressive." This composer used a natural horn in his *Horn Trio* and wrote his *Clarinet Trio* and *Clarinet Quintet* for Richard Mühlfeld. He used the likely misattributed "Chorale St. Antoni" as the basis for his *Variations on a Theme of* (\*) *Haydn*. Another of his works is based around a motif first presented as F-A-B flat and sets texts from the Luther Bible. This composer quoted from student songs like "Fuchslid" and "Gaudeamus igitur" in a piece often paired with the *Tragic Overture*. For 10 points, name this Romantic composer of *Academic Festival Overture*, the *Hungarian Dances*, and *A German Requiem*.

ANSWER: Johannes Brahms

3. An early Russian author of this genre, who wrote the novel *Professor Dowell's Head*, was Alexander Belyayev. A 1923 novel in this genre, which centers on a trip taken by Los' and Gusev, is titled for the beautiful daughter of a leader named Toscoob. An early novel in this genre titled *Aelita*, and another in which Garin attempts to become world dictator, were written by Alexey Tolstoy. In another novel in this genre, Dr. (\*) Kris Kelvin sees a projection of his wife Rheya, who committed suicide, while studying a massive and seemingly sentient ocean. A satirical, dystopian novel in this genre has a protagonist named D-503, a citizen of the One State who is constructing the *Integral*, a space ship. For 10 points, name this genre, exemplified by Yevgeny Zamyatin's *We* and Stanislas Lem's *Solaris*.

ANSWER: science fiction [or scifi; or nauchnaya fantastika]

4. Radioanalysis of isotopes often uses the "accelerator" form of this technique because it can sensitively distinguish rare isotopes. The highest-resolution form of this technique uses a small trapping potential and a magnetic field to keep particles trapped in a cubic cell, then measures their cyclotron frequency and performs a Fourier transform. The most common analyzer for this technique is a set of four parallel metal rods called the quadrupole filter. A common introductory physics problems involves analyzing the (\*) time-of-flight form of this technique. ESI and MALDI are commonly used to fragment molecules for analysis by this technique. The tallest peak in spectra from this analysis is called the base speak. For 10 points, name this analytical technique that separates ionized atoms based on their mass-to-charge ratio.

ANSWER: mass spectrometry [or mass spectroscopy]

5. A country who fought in this war now celebrates Children's Day on August 16, the day the losing side used a force of 3,500 children ages six to fifteen wearing fake beards. The losing side was curbstomped in three straight battles referred to as the "Dead of December" stretch. In this conflict, the losing country's leader was killed at the Battle of Cerro Cora and was buried by his Irish consort Eliza (\*) Lynch. The winning side featured such commanders as the Duke of Caxias, and President Bartolome Mitre. This war ended with the death of Francisco Solano Lopez, who desired the province of Mato Grosso. For 10 points, name this 1864 to 1870 conflict in South America in which Argentina, Brazil, and Uruguay teamed up to defeat Paraguay.

ANSWER: War of the Triple Alliance [or Paraguayan War until "Paraguay" is mentioned]

6. A gene-by-environment interaction involving the 5-HTTLPR gene may contribute to this disorder. Max Hamilton developed a popular 17-question rating scale for this condition. Aaron Beck claimed that this disorder was characterized by a cognitive triad involving one's thoughts about oneself, one's future, and the world. One hypothesis for this disorder's etiology is hyperactivity of monoamine oxidase A. (\*) Tricyclic drugs used for this condition include imipramine. A chronic, less severe form of this disorder is dysthymia. Bipolar disorder involves swings between symptoms of this disorder and mania. Selective serotonin reuptake inhibitors like Zoloft are primarily used to treat this disorder. For 10 points, name this mood disorder characterized by loss of interest in normal activities and persistent low mood.

ANSWER: major depression [or major depressive disorder; or MDD; or clinical depression]

7. During a battle in this war, a man's badge with a star was confused for a badge with a sun, leading to a side firing arrows at its own ally. It does not directly involve France, but during this war, the Bastard of Fauconberg burned various bridges and suburbs. The winner of this war was later challenged by the pretenders Lambert Simnel and Perkin Warbeck. It ended with a battle where the (\*) Stanleys first held back, then jumped in to support the winner. This war was briefly halted after the Battle of Tewkesbury when the heir apparent, Edward, was slain. This conflict ended after the Battle of Bosworth Field, where Richard III died and Henry Tudor took the throne. For 10 points, name this British war between the Houses of Lancaster and York.

ANSWER: The Wars of the Roses

8. Pictures of this country's architecture inspired the look of many buildings at the University of Texas at El Paso. The golden langur is native to this country's Black Mountains, while its national cuisine includes a chili pepper and cheese dish called *ema datshi*. People in this country wear a dress called the *wonyu* or a robe called the *gho* in accordance with its official behavior and dress code. It is home to the current highest unclimbed (\*) mountain in the world, Gangkhar Puensum. This country's capital city uses police in elaborately decorated booths, rather than lights, to direct traffic. In 1999, it lifted a national ban on television and the internet, thus increasing its unique index of development, which is called "gross national happiness". For 10 points, name this constitutional monarchy in the Himalayas ruled by the Dragon Kings of the Wangchuck family.

ANSWER: Kingdom of Bhutan [or Druk Yul]

9. A character from this city gets into a huge argument with his father after publishing a magazine article explaining Darwin's theory of evolution. The three grandsons of a family from this city variously disappoint their family by being a fundamentalist, a gay politician, and a Marxist journalist. In a novel set in this city, a character fractures her collarbone when she is hit by a car after leaving the house (\*) against her husband's wishes. Fahmy dies in a nationalist demonstration in this city in a novel that precedes one in which his love interest Maryam marries Yasin. A series of novels set in this city depicts the family of Al-Sayyid Ahmad Abd al-Jawad. For 10 points, name this setting of *Palace Walk*, *Palace of Desire*, and *Sugar Street*, a trilogy of novels by Naguib Mahfouz.

ANSWER: Cairo [or al-Qahirah]

10. A condition named for Volkmann may result from necrosis or ischemia of this tissue; that condition is an example of "compartment syndrome" which can accompany a condition in which direct or indirect injury of this tissue leads to contents of this tissue being released into the bloodstream. That condition, which is diagnosed by detecting elevated creatine kinase levels, is colloquially called (\*) "rhabdo". One of the main structural protein of this tissue is capped by the CapZ protein, and an influx of calcium ions prevents troponin from blocking the main function of this tissue. The smooth ER found in this tissue is called the sarcoplasmic reticulum, and its functional units are called sarcomeres. For 10 points, identify this tissue which comes in smooth and striated varieties, and whose contraction helps power many bodily movements.

ANSWER: muscles

11. Jean Stafford's story "The Interior Castle" was inspired by a car accident involving this author, Stafford's husband at the time. He asked "will your sword / whistle and fall and sink into the fat?" in a poem addressed to his cousin Warren Winslow. That poem by this author contains a section titled "Our Lady of Walsingham" and describes "the end of the whaleroad and the whale" in a place "where the (\*) bones cry out in the long night". The line "a savage servility slides by on grease" ends a poem by this man that begins with the image of "a Sahara of snow" surrounding "the old South Boston Aquarium". In that poem, he wrote of the "angry wrenlike vigilance" of Col. Shaw in St. Gaudens's monument. For 10 points, name this American poet of "The Quaker Graveyard in Nantucket" and "For the Union Dead".

ANSWER: Robert Lowell [or Robert Traill Spence Lowell IV]

12. The Laplace-Runge-Lenz vector is a constant of motion, and thus conserved, for this system. A more complex system is "restricted" to base its solutions on this system. Simpler equations can be applied to this system by defining the reduced mass. A special case of this system where the central force follows an inverse-square law is known as the Kepler problem. In the Kepler case, this generally solvable system's solutions are either hyperbolic, parabolic, or (\*) elliptic, in the latter case being closed orbits. For 10 points, name this system from classical and celestial mechanics that includes the Earth-Moon system and binary stars.

ANSWER: two-body problem [or obvious equivalents, such as two bodies under the influence of gravity]

13. In a story named for this villain, he tricked the debuting character of Harold Allnut, a mute hunchback, into working for him. In a television show, he is a martial arts expert aided by the mute Kabuki Twins. This character once used a prototype military helicopter to blind his nemesis. Based on the mascot of Kool Cigarettes, he ran for mayor in a film while aided by the Christopher Walken played Max Shreck. Carmine Falcone ordered Jim Gordon to kill this man in the pilot episode of a show. This character is then "hobbled" by a vengeful Fish Mooney in a later episode of *Gotham*. On a 1960's TV series, he was played by a top hat and monocle sporting Burgess Meredith. For 10 points, name this Batman villain noted for his trick umbrellas and love of birds.

ANSWER: The Penguin [or Oswald Cobblepot, accept either]

14. Johann Zoffany depicted himself trying to sell a painting of this subject to the 3rd Earl Cowper in *The Tribuna of the Uffizi*. A version of this scene in which the central figure draws a veil over another person is named for Loreto, while the presence of some carnations gives the nickname "of the Pinks" to another version of this scene. The same artist created a painting of this subject called *La Belle Jardinière*. A pair of oft-reproduced bored-looking (\*) cherubs appear in a painting of this subject that includes St. Sixtus, giving it its nickname "Sistine". In another painting of this subject, flowers are scattered around the central figure, who holds a book as she watches two children play with a bird. For 10 points, identify the subject of all of those Raphael paintings, including one in which John the Baptist and Jesus play with a goldfinch.

ANSWER: Madonna [or Mary and Child; or Mary and Jesus; accept Madonnas by Raphael, since they're all Raphael's Madonnas]

15. This President's first Secretary of State was an increasingly senile man served by the deaf Alvey Adee. Boss Thomas Platt pressured this man to accept a running mate in one election. A subordinate once cracked this man had the "backbone of a chocolate éclair." He was mocked by an ambassador in the "De Lome Letter," and his wife was an epileptic named Ida. This (\*) Ohio politician was the namesake of a high tariff repealed by the Wilson-Gorman Tariff. Under the guidance of Mark Hanna, he won the presidency using a front porch campaign. This President led the U.S. into war shortly after an explosion on board the USS *Maine*. For 10 points, name this President during the Spanish-American War, who was killed by an anarchist in 1901.

ANSWER: William McKinley

16. This man ate all the food and drink in Celliwig in the first of the Three Unrestrained Ravagings. One source claims that this man's actions forced his father to return early from his campaign against the Roman emperor Lucius. Another source claims that he survived a shipwreck after being born on May Day. A rebellion led by this man's two sons, one of whom is named Melehan, is put down by Constantine. Early sources list him as the son of Anna and King (\*) Lot of Orkney, while later sources consider him an illegitimate son of a different version of Anna and a man who killed him at the battle of Camlann. With his brother Agravain, he exposed the affair between Lancelot and Guinevere, and he later tried to usurp the throne of Britain. For 10 points, name this illegitimate son of Morgause and King Arthur.

ANSWER: Mordred [or Modred; or Medraut]

17. In a comic scene in this novel, Cain Ball repeatedly chokes and coughs on a crumb, a flea, and some cider while trying to relate events he'd seen in Bath. A character in this novel assists another in collecting bees into a hive before impressing her with a display of flashy swordsmanship. Another character in this novel is rehired for his bloat-curing abilities despite having rebuked his employer for sending a valentine reading (\*) "marry me". This novel's protagonist marries a man who pretends to have drowned after a riptide sweeps him out to sea shortly after learning of the death of Fanny Robin. For 10 points, name this novel in which the tragic clash between Farmer Boldwood and Sergeant Troy allows Bathsheba Everdene to find love with Gabriel Oak, written by Thomas Hardy.

ANSWER: Far from the Madding Crowd

18. The best known examples of these organisms belong to the *Acropora* and *Porites* genus in the order *Scleractinia*, the *Porites* genus being a common host of the Christmas tree worm. The ratio of strontium to calcium in these organisms is used as a proxy for SST in paleoclimatology. *Acanthaster planci*, or the crown-of-thorns starfish, preys on these organisms. The Funafuti borehole conclusively proved that subsidence is the primary factor in the distribution of these organisms, as first proposed by Charles (\*) Darwin. A major unsolved problem with these organisms is why they expel their symbiotic zooxanthellae (zo-zan-THEL-ee) in a process called "bleaching". These organisms secrete a calcium carbonate skeleton and are "cemented" together by a namesake red algae. For 10 points, name these Cnidarians that form namesake reefs.

ANSWER: coral polyps [or coral reefs]

19. In this city, the nuns of the Fraumünster Abbey were taught Latin by Oswald Myconius, who received permission from Katharina von Zimmern. A Bible printed in this city was the result of a theological meeting called the *Prophezey* that met at an institute also called the Carolinum. The printer of that Bible in this city, Christoph Froschauer, hosted a party in this city where (\*) sausages were eaten during Lent, prompting the pastor of the Grossmünster Church to split with the Catholic Church. That religious leader from this city, who met with Martin Luther at the Marburg Colloquy, was succeeded by Heinrich Bullinger after dying in the Second War of Kappel. For 10 points, name this Swiss city whose major Protestant reformer was Huldrych Zwingli.

ANSWER: Zürich, Switzerland

20. In this present-day country, Albert Balink collaborated with the Wong brothers to make films like *Pareh* and *Terang Boelan*, which starred Raden Mochtar. A kind of theater from this country uses stock comic characters called *panakawan*. A kind of musical ensemble from this nation uses pairs of instruments tuned slightly apart to make a shimmering sound called *ombak*. Those ensembles often use five-note *slendro* or seven-note *pélog* scales. This home of *wayang kulit* (\*) shadow puppetry is home to a Sailendra dynasty temple complex whose levels represent the planes of Mahayana Buddhist cosmology. The name of the wax-resist cloth-dyeing technique *batik* comes from this country. For 10 points, name this home of gamelan whose temple complex of Borobudur is found on Java.

ANSWER: Republic of Indonesia

TB. A perennial Nobel candidate who writes in this language broke onto the literary scene with 1957's *The Thirst*; her other works include the short story collection *Children of the New World*. *Between Life and Death* and *Weekend Quartet* are among the plays written in this language by an author who did *not* use it for his *Buying a Fishing Rod for My Grandfather*. Modou's transgressions are revealed after his death in an epistle by his wife Ramatoulaye in the novel (\*) *So Long a Letter*, which was originally written in this language. The essay "Black Orpheus" analyzed a literary movement that used this language and was founded by authors from Guiana, Martinique, and Senegal. For 10 points, Assia Djebar, Mariama Ba, and the leaders of the *négritude* movement wrote in which language, also used by their home countries' former colonizers?  
ANSWER: French [or Français] (the plays are by Gao Xingjian)

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**Packet 10: Bonuses**

1. This philosopher wrote that *amor fati* underlies the ability for the great man to embrace the idea that every moment of his life will be lived again and again, which he called eternal recurrence. For 10 points each:

[10] Name this German philosopher who wrote *Thus Spoke Zarathustra* and discussed the “will to power” in works like *The Gay Science*.

ANSWER: Friedrich Wilhelm Nietzsche

[10] In this Nietzsche work, he claims that the Greeks transcended pessimism through the title art form, which, like Richard Wagner’s operas, achieved a balance between the Apollonian and Dionysian.

ANSWER: *The Birth of Tragedy from the Spirit of Music* [or *The Birth of Tragedy or Hellenism and Pessimism* or *Die Geburt der Tragödie aus dem Geiste der Musik*; or *The Birth of Tragedy oder Griechentum und Pessimismus*]

[10] This ostensible feminist borrowed Nietzsche’s Apollonian/Dionysian distinction to show how the chaotic powers of human sexuality are reflected throughout art history in *Sexual Personae*. More recently, she wrote *Glittering Images*.

ANSWER: Camille Anna Paglia

2. This action happened twice during the Nixon administration, involving Clement Haynsworth and G. Harrold Carswell. For 10 points each:

[10] Name this action which last happened in 1987, when it happened to a former Solicitor General still maligned for his role in the Saturday Night Massacre. It never officially happened to Douglas Ginsburg and Harriet Miers, who pulled out before it could happen.

ANSWER: The Senate rejecting a Supreme Court nomination from the President [accept equivalents, like failed Supreme Court nomination/vote, accept “borking”]

[10] Harriet Miers was George W. Bush’s choice to replace this woman, the first female Supreme Court justice, who retired in 2006.

ANSWER: Sandra Day O’Connor

[10] This Supreme Court Justice was a failed LBJ nominee to replace Earl Warren as Chief Justice. Defeated by a filibuster, this man later resigned from the Court completely in 1969 after an ethics scandal. This man previously represented Clarence Gideon in a Court case involving right to counsel.

ANSWER: Abraham “Abe” Fortas

3. A line in this play about “a drift of females standing in their shifts” became the pretext for a series of riots during its January 1907 premiere. For 10 points each:

[10] Name this play in which the barmaid Pegeen falls for Christy Mahon, who becomes notorious for claiming to have killed his father and for winning a donkey race.

ANSWER: *The Playboy of the Western World*

[10] The *Playboy* riots took place in this city, the home of the play’s author John Millington Synge. A collection of stories set in this city includes “Ivy Day in the Committee Room” and “The Dead” and was written by James Joyce.

ANSWER: Dublin, Ireland [or Baile Atha Cliath; accept Dubliners]

[10] W.B. Yeats referenced the *Playboy* riots to discourage would-be rioters at an early performance of this play by another Irish author, in which Jack Clitheroe takes part in the Easter Rising.

ANSWER: *The Plough and the Stars* [by Sean O’Casey]

4. These representations were pioneered by Charles Elton's *Animal Ecology*, and the thickness of their arrows may represent energy flows or interaction strength. For 10 points each:

[10] Name these representations of feeding dynamics in a community in which predators and prey are connected by arrows.

ANSWER: **food web** [or **food cycle**; prompt on **food chain**]

[10] This coauthor of *The Theory of Island Biogeography* with E. O. Wilson argued that adding more species to a food web has a stabilizing effect. With Richard Levins, he developed the idea of limiting similarity.

ANSWER: Robert Helmer **MacArthur**

[10] Robert MacArthur and Michael Rosenzweig modified this predator-prey model, a system of two differential equations, to account for Holling type II functional response.

ANSWER: **Lotka-Volterra** predator-prey equations

5. 1917's *The Card Players* marked the beginning of the "mechanical period" of this artist, who painted two abstract, blob-like murals for the United Nations Headquarters in 1952. For 10 points each:

[10] Identify this painter of *The City* who co-directed *Ballet Mecanique* with Dudley Murphy. His early obsession with cylindrical forms led Louis Vauxcelles to nickname his style "Tubism".

ANSWER: Fernand **Léger** [or Joseph Fernand Henri **Léger**]

[10] Léger was a member of the Puteaux Group, also known as the Section d'Or, which was a collective of painters who worked in variants of this style, which was pioneered by Georges Braque and Pablo Picasso.

ANSWER: **Cubism** [accept synthetic **cubism** or analytic **cubism**]

[10] Picasso's late cubist works include a series of 58 paintings based on this much earlier Spanish painting.

Presumably Picasso's cubist alterations messed with the sightlines in the original discussed in the opening chapter of Foucault's *The Order of Things*.

ANSWER: *Las **Meninas*** [or *The **Maids of Honor***; by Diego Velazquez]

6. The discovery that neutral kaon decays violated the conjugation of this property with charge symmetry won Cronin and Fitch a Nobel in Physics. For 10 points each:

[10] Name this symmetry possessed by interactions that don't care whether a coordinate system is left- or right-handed.

ANSWER: **parity** symmetry [or **P**-symmetry]

[10] The Wu experiment observed the violation of parity symmetry in this mode of decay of Cobalt-60. In this type of decay either a neutron decays to a proton, electron, and antineutrino, or a proton decays to a neutron, positron, and neutrino.

ANSWER: **beta** decay

[10] The CP violation in neutral kaon decays was observed because they decayed via this force, which is also the force responsible for beta decay.

ANSWER: **weak** force

7. While scrambling for a first down during Super Bowl XXXII, this player was hit in midair by Leroy Butler and Mike Prior in a play later referred to as "The Helicopter". For 10 points each:

[10] Name this horse-faced player who led "The Drive" in the 1987 AFC Championship game, a longtime Denver Broncos quarterback who is now the Broncos' general manager.

ANSWER: John **Elway** [or John Albert **Elway**, Jr.]

[10] Elway's 3,407 career rushing yards put him at sixth all-time for quarterbacks, directly behind this former signal-caller for the Titans and Ravens who was murdered by his mistress in 2009.

ANSWER: Steve **McNair** [or Stephen LaTreal **McNair**; or of course Air **McNair**]

[10] Among Elway's many embarrassing Super Bowl losses was a 42-10 blowout at the hands of this team in 1988. This team was led by quarterback Doug Williams and Timmy Smith, a rookie who rushed for a then-record 204 yards.

ANSWER: **Washington Redskins** [accept either underlined portion]

8. This man has denied allegations he was a secret police informer code-named "Bolek." For 10 points each:  
[10] Name this Nobel Prize winner whose political party took charge after free elections started by the Round Table Agreement. This one-time electrician at a shipyard was strongly supported by countryman Pope John Paul II.

ANSWER: Lech Walesa

[10] Walesa and Pope John Paul II both hailed from this European country, which Walesa would later lead as President from 1990 to 1995.

ANSWER: Republic of Poland

[10] In 1981, Mehmet Ali Agca, a member of this neo-fascist Turkish group, tried to assassinate John Paul II. It is currently the largest far-right organization in Germany.

ANSWER: Grey Wolves [or Ulku Ocaklari; or Bozkurtlar]

9. Jose Saramago's final novel is titled for this character, as was a Milton-inspired closet drama by Lord Byron, while he is allegorically represented by Joaquin Monegro in Miguel de Unamuno's novel *Abel Sanchez*. For 10 points each:

[10] Name this Biblical character. At the end of the aforementioned Byron play, he kills his brother Abel.

ANSWER: Cain

[10] Unamuno invented this nonsense word to refer to his longer works of fiction, like *Abel Sanchez* and *Niebla*, which were more concerned with ideas, and less with character development or setting, than those of his contemporaries.

ANSWER: nivolas

[10] Unamuno's apparently-famous love of Portuguese culture means that he was probably a big fan of this epic poem by Luis Vaz de Camoens, in which Vasco da Gama encounters the Adamastor.

ANSWER: *The* Lusiads [or *Os* Lusiadas]

10. Conlon Nancarrow wrote his studies for player piano while living in this country, and another composer from this country wrote a piece in 7/8 that begins with a bass clarinet trill, *Sensemayá*. For 10 points each:

[10] Name this country whose other major works include a one-movement symphony whose percussion instrumentation calls for butterfly cocoons and a string of deer hooves, *Sinfonía India*.

ANSWER: Mexico

[10] The composer of *Sinfonía India*, Carlos Chávez, took this American composer to a club called *El Salón México*, which he used as the title for a piece. He wrote *Quiet City* and a ballet with sections like "Corral Nocturne" and "Saturday Night Waltz."

ANSWER: Aaron Copland

[10] Like Copland, Astor Piazzolla studied with Nadia Boulanger before writing pieces like *Adiós Nonino* for this Argentine dance form popularized by Carlos Gardel. This dance is often performed in close embrace and uses moves like "ochos."

ANSWER: tango

11. This book ends with a collection of testimonials called "Fruitage." For 10 points each:

[10] Name this foundational text by Mary Baker Eddy published in 1875. It labels disease a "false belief" and asserts that prayer is the best way to fight illness.

ANSWER: Science and Health with *Key to the Scriptures*

[10] The Christian Science Church takes as its main texts *Science and Health*, as well as this translation of the Bible named for an English king that was completed in 1611.

ANSWER: King James Bible [or KJV; or KJB; prompt on Authorized Version]

[10] While the headquarters of the Christian Science Church is in Boston, the first of its churches was built in this state, where Wade Michael Page shot six people at a house of worship in 2012.

ANSWER: Wisconsin

12. Computer programs use the Quine-McCluskey algorithm to perform this task, though mere humans usually stick to use Karnaugh maps. For 10 points each:

[10] Name this process that can also be done algebraically, using distributivity, commutativity, associativity, De Morgan's laws, and various other properties.



ANSWER: **circuit minimization** [or **logic minimization**; or **simplifying boolean algebra expressions**; or obvious equivalents]

[10] Logic gates in circuits are built from these semiconductor devices. CMOS devices supplanted the BJT-based “this device” “this device” logic of the 60s and 70s.

ANSWER: **transistors**

[10] The binary form of this logic gate outputs a high voltage only when both of its inputs are high. It is equivalent to a logical conjunction.

ANSWER: **AND** gate

13. Answer the following about research methods in ethnography, for 10 points each.

[10] Historically, many researchers embedded themselves directly in a studied group in a practice called participant observation. One of the pioneers of that technique was this woman, whose major works include the questionable *Coming of Age in Samoa*.

ANSWER: Margaret **Mead**

[10] In *The Interpretation of Cultures*, Clifford Geertz used this term borrowed from Gilbert Ryle to refer to his analyses of human behavior that explained both the behavior itself and its context.

ANSWER: **thick description**

[10] The linguist Kenneth Pike coined this pair of terms to refer to two types of research: those that obtain information from the perspective of the subject and those that concern the perspective of the observer.

ANSWER: **emic** and **etic** [prompt on partial answer]

14. It’s not a tutor, but this position was held by the amusingly named “Gogo” from 576 to 581. For 10 points each:

[10] Name this position, the “power behind the throne,” which was held by Pepin the Short when he overthrew the final Merovingian ruler to become king of the Franks.

ANSWER: **Mayor of the Palace** [or *maior palatii*; prompt on **major domo**]

[10] Pepin was succeeded as king by his sons Carloman and this man, his oldest son. He was crowned “Emperor of the Romans” by Pope Leo III in 800.

ANSWER: **Charlemagne** [or **Karolus Magnus**; or **Charles the Great**; or **Charles I**]

[10] Pepin engineered the deposition of this Merovingian ruler, who had his hair cut after he was officially dethroned by Pope Zachary.

ANSWER: **Childeric III** [prompt on partial answer]

15. Answer the following about ancient Greek poetry, for 10 points each.

[10] Anne Carson’s *If Not, Winter* is a collection of fragments by this poet from Lesbos, whose only surviving full poem is her “Hymn to Aphrodite”.

ANSWER: **Sappho**

[10] Apollonius of Rhodes wrote a four-book epic about the adventures of this group of people, whose members included the seer Mopsus, the musician Orpheus, and Boreas’s sons Calais and Zetes.

ANSWER: the **Argonauts** [or the *Argonautica*; prompt on things like “Jason’s followers” or “sailors”]

[10] This probable Syracusan invented the genre of bucolic poetry in his *Idylls*, which directly inspired the later *Eclogues* of Virgil.

ANSWER: **Theocritus**

16. This opera's title character is advised to find a new lover in the very long aria "Grossmächtige Prinzessin," which was mercifully shortened and transposed down to D major for the 1916 version. For 10 points each:

[10] Name this opera in which, due to time limits, a serious mythological opera must be mashed together with the commedia dell'arte burlesque *Faithless Zerbinetta and Her Four Lovers*.

ANSWER: **Ariadne on Naxos** [or **Ariadne auf Naxos**]

[10] This opera by the same composer, based on an Oscar Wilde play, shocked audiences with its "Dance of the Seven Veils." A "sickening" chord, consisting of F-sharp major on top of an A dominant seventh, plays after the title woman kisses the head of Jochanaan.

ANSWER: **Salome**

[10] *Ariadne on Naxos* and *Salome* were written by this German composer, whose other collaborations with Hugo von Hofmannsthal include *Der Rosenkavalier*. His tone poems include *Don Juan* and *Also sprach Zarathustra*.

ANSWER: **Richard Georg Strauss** [prompt on "Strauss"]

17. Answer the following non-questions about the short fiction of J.D. Salinger, for 10 points each.

[10] This recurring character no-shows his own wedding in the novella *Raise High the Roof Beam, Carpenters* and shoots himself at the end of the story "A Perfect Day for Bananafish".

ANSWER: **Seymour** Glass [prompt on "Glass"; accept **Seymour Glass**]

[10] The stories "I'm Crazy" and "Slight Rebellion off Madison" were reworked as chapters of this Salinger novel about Holden Caulfield.

ANSWER: *The* **Catcher in the Rye**

[10] The title character of this story from *Nine Stories* is an extremely spiritual ten-year-old who deals with his cruel sister Boozer and discusses God with Bob Nicholson before presumably falling to his death in an empty pool.

ANSWER: "**Teddy**"

18. When these substances become destabilized, flocculation occurs. For 10 points each:

[10] Name these mixtures consisting of a dispersed phase within a continuous phase.

ANSWER: **colloids**

[10] In this effect, light is scattered off of the dispersed particles in a colloid, thus rendering the colloid translucent. The intensity of light in this effect, as in Rayleigh scattering, is proportional to the fourth power of frequency.

ANSWER: **Tyndall** effect

[10] This process, also called deflocculation, is the dispersion of the dispersed phase within the continuous phase to form a stable colloid.

ANSWER: **peptization** [accept word forms such as **peptize**]

19. This man's death took place either during his marriage to the Trojan princess Polyxena or shortly after his fight with Memnon over the latter's killing of Antilochus. For 10 points each:

[10] Name this Greek warrior who avenged the death of his companion Patroclus by killing Hector, only to himself be shot in the heel by Paris.

ANSWER: **Achilles** [or **Akhilleus**]

[10] Achilles, like his father Peleus and his grandfather Aeacus before him, commanded this group of warriors. An etiological myth of their origin describes how they were transformed from ants to populate the island of Aegina.

ANSWER: the **Myrmidons**

[10] In the *Iliad*, Achilles is said to have earned the "imperishable", or "*aphthiton*", version of this reward by forgoing his *nostos*, or homecoming. This concept takes its name from the Greek for "glory", or "fame".

ANSWER: **kleos** [or **kleos** *aphthiton*]

20. This event occurred shortly after the death of the main participant's probable lover, Hephaestion. For 10 points each:

[10] Name this event which could have been caused by malaria, West Nile virus, or poisoning. It definitely resulted in the Wars of the Diadochi between such possible successors as Seleucus and Ptolemy.

ANSWER: The **death** of **Alexander** the Great [or the **death** of **Alexander** III of Macedon]

[10] Alexander the Great died in the former palace of Nebuchadnezzar in this city, the site of the "Hanging Gardens" that was one of the Seven Wonders of the Ancient World.

ANSWER: **Babylon**

[10] Shortly before dying, Alexander fought the extremely bloody Battle of the Hydaspes River against this Pauravan King's forces. This ruler was beaten and thus forced to serve Alexander.

ANSWER: **Porus** [or **Purushottama**]

Extra. Wikipedia claims this term was coined by Machiavelli. For 10 points each:

[10] Give this numerical term that refers to such Roman rulers as Nerva, Hadrian, and Marcus Aurelius. This term refers to their supposedly benevolent qualities.

ANSWER: **Five Good Emperors**

[10] The last of the Five Good Emperors, Marcus Aurelius, wrote this 12-book collection of Stoic philosophy while engaged in various military campaigns.

ANSWER: **Meditations** [or **Ta eis heauton**]

[10] A famous note in *Meditations* states that it was compiled while Marcus Aurelius was fighting these mysterious Germanic peoples near the Granua River. That campaign occurred during the Marcomannic Wars.

ANSWER: **Quadi**