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 03: Tossups

1. A current resident of this metropolis published an early artist book titled *Twentysix Gasoline Stations* and collected photographs of thoroughfares in this city taken with a motorized camera. Ed Ruscha is a pop artist from this city, which is home to Jonathan Borofsky's *Ballerina Clown*. Works which were painted for an Olympics in this city, such as *Jim Morphesis Monument* and *Luchas del Mundo*, were recently restored after this city passed a major (*) mural ordinance. Art dealer Felix Landau set up shop in this city on La Cienega Boulevard. A major university in this city runs the Hammer Art Museum, and another museum in this city, which features a recreation of the Villa of the Papyri in Herculaneum, was built by J. Paul Getty. For 10 points, identify this city which is home to the Frank Gehry-designed Walt Disney Concert Hall.

ANSWER: Los Angeles, California [or LA; accept Culver City, California]

2. A character in this novel throws a bunch of vegetables over a wall in order to show his affection for the protagonist's mother. Mr. Lillyvick is dumped by his wife Henriette Petowker in this novel, which also features a character known as "the infant phenomenon" who is the star attraction of the troupe led by her parents, the Crummles. In this novel, Lord Verisopht is killed in a duel by Sir Mulberry Hawk, who attempts to force himself on the protagonist's sister (*) Kate, who later marries Frank Cheeryble. The protagonist of this novel gets a job at Dotheboys Hall, where he saves Smike from a beating at the hands of the villainous Wackford Squeers, which in turn causes a continuing conflict with the protagonist's uncle Ralph. For 10 points, name this alliteratively-titled novel by Charles Dickens.

ANSWER: Nicholas Nickleby [or The Life and Adventures of Nicholas Nickleby]

3. In English, according to the X-bar model, T lowers to attach suffixes to these things. In government and binding theory, these things are associated with theta grids that specify theta roles. A small subset of these parts of speech permit exceptional case-marking. Light and auxiliary types of these have less semantic content. Ergative and nominative-accusative languages align the (*) arguments of these parts of speech differently. Causatives increase the valency of these parts of speech, while the passive voice decreases their valency by one. One way of classifying languages relies on where these parts of speech are relative to subjects and objects. When these parts of speech lack objects, they are called intransitive. For 10 points, name this part of speech used for states of being and actions.

ANSWER: verbs

4. A leader who defected from this faction surrendered his fleet at the Battle of Meloria, which led to the decline of a major stronghold for this faction. A city loyal to this faction won the War of the Oaken Bucket. This faction was victorious in a battle in which a man sympathetic to this group cut off the hands of the standard-bearer of their opponents. Before winning the battle of Montaperti, this group agreed to the Peace of Constance after it lost the Battle of (*) Legnano, in which it was opposed by the Lombard League. This group got its name from a Hohenstaufen castle in Franconia and it supported the imperial ambitions of Frederick Barbarossa against the supporters of the Papacy. For 10 points, identify this Italian faction that spent the medieval and early Renaissance periods opposing the Guelphs.

ANSWER: <u>Ghibelline</u>s or [<u>Ghibellini</u>; prompt on "<u>Hohenstaufen</u>s" or "<u>supporter</u>s of <u>Frederick</u> Barbarossa" or equivalents]

- 5. One receptor for this compound is GPR109A, whose activation in Langerhans cells leads to the release of prostaglandins D2 and E2. L-kynurenine is an intermediate in the synthesis of this molecule via cleavage of the five-membered ring of tryptophan. This molecule is a pyridine with a carboxyl group at the 3 position. Hartnup's disease may cause deficiency of this vitamin, which results in the (*) three Ds of diarrhea, dermatitis, and dementia. Among patients not taking statins, this vitamin can help reduce LDL levels. Large doses of this vitamin may dilate blood vessels and cause a namesake flush. Bioavailability of this vitamin from maize can be increased by nixtamalization, which involves treatment with lime. This vitamin is a precursor to the coenzymes NAD and NADP. For 10 points, name this B-vitamin whose deficiency is called pellagra. ANSWER: niacin [or Vitamin B3; or nicotinic acid]
- 6. One form of these things is believed to multiply through a process called *peldung*. Another one of these things is celebrated during the extravagant procession of the Esala Perahera festival. One type of these objects called *rangsil* are small pearl-like objects that often appear after cremation. In 1998, a bombing in Kandy targeted a temple that contains the most famous one of these religious objects in Sri Lanka. The *sarira* type of these objects are often placed in glass bowls in (*) stupas or in statues of a certain figure. These objects are venerated as means to cut short the cycle of reincarnation and to achieve the enlightenment described by their person of origin in his sermons and sutras. For 10 points, name these sacred objects in a certain religion believed to be remains of bodhisattvas or Siddhartha Gautama that include hair, bone, and teeth.

 ANSWER: <u>Buddhist relics</u> [accept things like <u>relics</u> of the <u>Buddha</u>, <u>relics</u> of <u>bodhisattvas</u>; <u>rangsil</u> (or <u>rangil</u>) and <u>sarira</u> before mentioned; prompt on "<u>relics</u>"; prompt on "<u>Buddhist objects/holy things</u>"; reverse prompt (i.e. "Can you be less specific") on answers like "<u>teeth</u>" or "<u>hair</u>" and accept answers that specify that they belong to, or are <u>body</u> parts of, the <u>Buddha</u> or <u>bodhisattvas</u>]
- 7. This man developed a regime which approximates that light propagation doesn't significantly diverge from a beam's axis, which allows for propagation equations to assume the small angle approximation. In addition to developing that paraxial approximation, this man gained fame for using observations by Joseph Piazzi to compute the orbit of the asteroid (*) Ceres. One of his namesake laws, which suggests that the magnetic field lines going in and out of an infinitesimal volume must cancel out, implies that magnetic monopoles cannot exist. For 10 points, identify this scientist whose namesake unit measures magnetic flux density, and whose name law states that the electric flux through a closed surface is directly proportional to the charge enclosed by that surface. ANSWER: Carl Friedrich Gauss
- 8. Judges from this country award the Dobloug Prize, for which only writers from this country and a western neighbor are eligible. A literary society in this country called the Society of Nine had as one of its founding members the author of a children's book whose title character goes on a series of adventures with a goose. That author from this country was the first woman to win a prize that was first awarded to Sully (*) Prudhomme. In 1974, two poets from this country, Harry Martinson and Eyvind Johnson, controversially awarded themselves a major literary prize. Its publishers award the August Prize, which is named for a playwright from this country who penned *Ghost Sonata*, *The Father*, and *Miss Julie*. For 10 points, name this Scandinavian country, the home of Selma Lagerlof and August Strindberg, whose Academy awards the Nobel Prize in Literature. ANSWER: Kingdom of Sweden [or Konungariket Sveringe]
- 9. In one painting, this woman's left sleeve depicts the serpent of wisdom, and her orange-red cloak is adorned with realistic-looking eyes and ears. That portrait of this woman, which may have been painted by Isaac Oliver, is emblazoned with the motto "non sine sole iris" and shows her grasping in her right hand a miniature rainbow. This woman, whose face was often modeled in art after the (*) Darnley Portrait, is shown standing atop a map wearing a massive white dress in the Ditchley Portrait. In an unusually horizontally oriented portrait, she is shown resting her hand on a globe, wearing a puffy dress adorned with many pink bows, and sitting in front of two seascapes showing the extent and destruction of the Spanish navy. For 10 points, name this queen of England depicted in the Armada Portrait.

ANSWER: Queen **Elizabeth I** [prompt on "(Queen) Elizabeth"]

- 10. A military dictator who ruled this country in the 1970s detained political prisoners in the basement of this country's Ministry of the Interior office, and was advised in interrogation techniques by Klaus Barbie. That man's later term as a democratically elected president saw massive protests that forced the engineering firm Bechtel out of this country, which effectively ended Bechtel's contract for administering the (*) water supply of this country's third largest city of Cochabamba. More recently, this country pursued a "Nationalization without expropriation" campaign to regain rights to natural gas reserves, championed by its current Aymara leader. For 10 points, identify this South American country that is led by a former organizer of coca growers, Evo Morales. ANSWER: Plurinational State of Bolivia [or Estado Plurinacional de Bolivia]
- 11. During his travels, this character asks why an earlier figure hadn't simply built a bridge out of arrows, prompting a contest in which he builds bridges that a god attempts to destroy. This character teaches music and dancing to the princess Uttara while living under the female alias Brihannala. During a pilgrimage, he married Chitrangada, Subhadra, and the naga princess Ulupi. He used Shikhandi, whose sex had been changed, as a shield in order to defeat the nearly-invincible (*) Bhishma. This wielder of Gandiva passed a test involving shooting a golden fish's eye while looking at its reflection, thus winning the hand of Draupadi. On the seventeenth day of the Kurukshetra War, he killed Karna. For 10 points, name this strongest of the Pandavas, whose dialogue with his charioteer Krishna forms the *Bhagavad Gita*.

 ANSWER: Arjuna
- 12. This modern-day political party first won its country's highest executive office two years after its CERES faction was defeated at a gathering at Metz; in that election, this party ran a platform called the 110 Propositions. Early in this party's history, it was rivaled by a "Unified" party of the same name known as the PSU, whose leader, Michel Rocard, later joined this party. At the 1969 Alfortville Congress, this party replaced the SFIO, which had elected (*) Leon Blum president in 1936. During the Fifth Republic, this party first came to power in the 1981 presidential election, in which Valéry Giscard d'Estaing of the UDF was defeated by Francois Mitterand of this party. For 10 points, name this left-wing party, to which the current president of France, Francois Hollande, belongs.

ANSWER: [French] Socialist Party [or Parti Socialiste; accept Socialists; prompt on "PS"]

13. The k-nearest neighbors algorithm and principal component analysis are used to avoid the "curse" of one type of this quantity. For a subset S of a metric space, another type of this quantity is given as the infimum of alpha in zero to infinity, inclusive, where alpha makes the Hausdorff measure of S zero. The topological variant of this quantity is defined recursively from the null set, which has a value of minus one for it. For a linear map L from V to W, this quantity for V is equal to the (*) rank of L plus the nullity of L. This value for a subspace W of a vector space V is always less than or equal to this value for V, and it is equal to the number of vectors in the basis of V. For 10 points, name this quantity that is the number of different coordinates needed to define a point in a space.

ANSWER: number of dimensions

14. A collection by this author opens with a poem that describes a miser being cut in half with an axe by a freedwoman and begins by asking why "no one alive's ever content with his lot". Another of his works tells the addressee to put a manuscript "in the closet for nine years" since "one can always destroy what one hasn't published". This man advocated the golden mean in a poem that begins (*) "Rectius vives, Licini" and claimed to have "made a monument more lasting than bronze" in another poem. He criticized purple prose in a letter to Lucius Calpurnius Piso that coined the phrases "even good Homer nods", "ut pictura poesis", and "in medias res". For 10 points, name this Roman author of *Ars Poetica* whose four books of *Odes* contain such other memorable phrases as "dulce et decorum est pro patria mori" and "carpe diem".

ANSWER: **Horace** [or Quintus **Horatius** Flaccus]

15. A discursion on this work's concept of the "ideal average" appears in a collection of essays from a seminar on this book led by Étienne Balibar and Louis Althusser. This book traces the shift from a form of circulation denoted C-M-C to M-C-M, and it argues that increases in the organic composition of the title concept cause the tendency for the rate of profit to fall. This book argues that the (*) exchange value of an object is tied to the socially necessary labor time needed to produce it. After introducing the "value-form," it calls the tendency for social relations to be transmuted into economic relations "commodity fetishism." Because its author died before the completion of its second and third volumes, they were prepared by Friedrich Engels. For 10 points, name this analysis of the political economy of the title concept by Karl Marx.

ANSWER: Das Kapital [or Capital]

16. A character in this novel deliberately makes the protagonist jealous by referring to the charms of Wallace Trone and a "peach of a boy" named Charlie. In the final chapter of this novel, Reverend Duncan MacMillan finds himself unable to lie to Governor David Waltham. This novel's protagonist withholds money from his pregnant sister Esta in order to buy a jacket for Hortense Briggs. After fleeing from a car accident caused by Willard Sparser, the protagonist of this novel contacts his uncle Samuel, who gets him a job in (*) Lycurgus, New York. A climactic event in this novel takes place on Big Bittern Lake, where the protagonist's desire to marry Sondra Finchley leads him to kill his girlfriend Roberta Alden. For 10 points, name this novel about Clyde Griffiths, written by Theodore Dreiser.

ANSWER: An American Tragedy

- 17. Twice in this piece's scherzo third movement, all voices but the oboe, bassoon, and violins drop out before being gradually re-introduced, leading to the two trio sections in 2/4. This piece was described by its composer as "more feeling than tone-painting." This piece's first movement features an oft-repeated eighth sixteenth eighth eighth note rhythm. At the end of this piece's second movement, a flute, oboe, and two clarinets imitate a (*) nightingale, quail, and cuckoo. That 12/8 Andante molto moto movement opens with a string figure representing flowing water in a brook. The 6/8 final movement represents the thanksgiving song of shepherds after the passing of the storm depicted in the fourth movement. For 10 points, identify this five-movement symphony in F major by Ludwig van Beethoven, nicknamed "Pastoral."

 ANSWER: Symphony No. 6 by Ludwig van Beethoven [or "Pastoral" Symphony before mentioned; do not require
- ANSWER: Symphony No. <u>6</u> by Ludwig van <u>Beethoven</u> [or "<u>Pastoral</u>" Symphony before mentioned; do not require "Beethoven" after he's mentioned]
- 18. Players of this game often complain about the low fire rate and damage of a sniper rifle called "No Land Beyond". The song "Hope for the Future" was recorded for this game by Paul McCartney. An enemy in this game can target players with the "Mark of Negation" and is killed by the Aegis; that enemy, the Templar, appears shortly after the opening of the Vault of Glass. A voice that says "A million deaths are not enough for Master Rahool" was patched in to replace the (*) respawning enemies in this game's famous "loot cave". On weekends in this game, players can use "strange coins" to buy things from Xûr. Players of this game can choose from the Human, Awoken, and Exo races and the Hunter, Warlock, or Titan classes. For 10 points, name this extremely recent Bungie game, a so-called "shared-world shooter" about the Guardians.

 ANSWER: Destiny

19. Nitrazine is a substance of this type used in medical contexts, such as testing vaginal fluids for breakage of the amniotic sac or fecal matter for signs of intestinal infections. One of these substances converts from a quinoid structure to a lactone, resulting in a highly conjugated complex. Arnold Beckmann invented a machine that uses a glass electrode to accomplish an analogous function to these substances. Like (*) buffers, these substances often consist of a weak acid and a conjugate base, and can thus be modeled with the Henderson-Hasselbalch equation. They are often used to find equivalence points in titrations, and naturally occurring examples of them include red cabbage and litmus. For 10 points, name these substances that change color in the presence of acids or bases.

ANSWER: pH indicators [or acid-base indicators; prompt on "dye(s)"]

20. A member of this tribe proudly exclaimed "Me whip!" after seeing the portrait of a politician in Washington that he had once fought. Its leader, Neamathla, objected to U.S. troops attacking "Negro Fort," which threatened this tribe's territory. Thomas Jessup used a false flag of truce to capture one of its leaders, Billy Bowlegs. The nickname "Old Rough and Ready" was given to Zachary Taylor while fighting this tribe, which, along with the (*) Creek, was aided by two British subjects executed by the U.S. It was forced to move after the Treaty of Payne's Landing. This tribe killed over a hundred troops in the Dade Massacre. It was led by Chief Osceola during a war that featured the Battle of Lake Okeechobee. For 10 points, name this American Indian tribe which fought three namesake wars in modern-day Florida.

ANSWER: the **Seminoles**

TB. In a 1989 interview, this man said he avoided the draft because he had "other priorities in the '60s than military service." He was the campaign manager for Gerald Ford's failed 1976 presidential campaign. During an interview with Martha Raddatz, this man answered a question about public confidence by saying "So?" His former chief of staff, Scooter Libby, was investigated for leaking CIA information. In February 2006, this man accidentally shot his friend while they were quail hunting. The Secretary of Defense during the first Gulf War, he was the Chairman of Halliburton from 1995 to 2000. In his highest role, this man was the successful running mate of a former Governor of Texas. For 10 points, name this Vice President under George W. Bush. ANSWER: Richard "Dick" Cheney

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 03: Bonuses

1. Early in his career, this man allied with Abeid Karume, who later became this man's Vice President. For 10 points each:

[10] Identify this leader who used the term *ujamaa* to describe his vision for economic development via collectivization. This man laid out that vision in the Arusha declaration.

ANSWER: Julius Kambarage Nyerere

[10] For more than 20 years Nyerere was the president of this African nation, which was formed by the unification of Zanzibar with the Republic of Tanganyika.

ANSWER: United Republic of Tanzania

[10] For much of the 18th and 19th centuries, Zanzibar was a dominion of this sultanate, which is now ruled by the Al Said dynasty. In the 1950s, this Sultanate fought a war to retain control of Jebel Akhdar.

ANSWER: Sultanate of **Oman**

2. Answer the following about the labors of Heracles, for 10 points each.

[10] Eurystheus claimed that Heracles had cheated by rerouting the rivers Alpheus and Peneus to clean out the stables of this king of Elis, and so the labor didn't count.

ANSWER: Augeas [or Augeias; or the Augean Stables]

[10] After his fairly effortless defeats of the Nemean Lion and the Hydra, Heracles spent a full year chasing this animal, which was sacred to Artemis, across Europe.

ANSWER: the **Ceryneian Hind** [or **Cerynitis**; or the **Golden Hind**]

[10] During his final labor, Heracles encountered Pirithous and Theseus, freeing the latter, while traveling through the underworld to retrieve this three-headed dog from the court of Hades.

ANSWER: <u>Cerberus</u> [or <u>Kerberos</u>]

3. Answer the following about artists named Richter, for 10 points each.

[10] Gerhard Richter was one of many notable artists, also including George von Schadow and Anselm Feuerbach, to attend or teach at the Kunstakademie Düsseldorf in this modern-day European country.

ANSWER: Federal Republic of **Germany** [or Bundesrepublik **Deutschland**]

[10] Hans Richter was inspired by two major German expressionist movements, including this one that was named for a Wassily Kandinsky painting.

ANSWER: The **Blue Rider** [or Der **Blaue Reiter**]

[10] Adrian Ludwig Richter was a German artist from this city, the site of the 20th-century destruction of Gustave Courbet's *The Stone Breakers*.

ANSWER: **Dresden**

4. A puppet-show burlesque in Ben Jonson's *Bartholomew Faire* is partly based on this poem, which was completed after its author's death by George Chapman. For 10 points each:

[10] Name this poem in which a boy from Abydos is briefly kidnapped by Neptune while swimming across the Hellespont to be with his lover.

ANSWER: "Hero and Leander"

[10] "Hero and Leander" was written by this author of *The Jew of Malta* and *Doctor Faustus*, who was fatally stabbed by Ingram Frizer when he was only 29.

ANSWER: Christopher Marlowe

[10] The title character of this Marlowe play is betrayed by a mower and captured at Neath Castle, after which he is killed with a red-hot poker by Lightborn.

ANSWER: <u>Edward II</u> [or The Troublesome Reign and Lamentable Death of <u>Edward the Second</u>, King of England, with the Tragical Fall of Proud Mortimer]

5. For a point mass, this quantity is simply mass times the distance to the rotation axis, squared. For 10 points each:

[10] Name this rotational analog of mass.

ANSWER: <u>moment of inertia</u> [or <u>I</u>; or <u>angular mass</u>]

[10] Depending on the number of equal principal moments of inertia, these things can be classified as a spherical top, symmetrical top, or asymmetrical top. These idealized solids from mechanics are roughly defined as a system of particles where the distance between the particles does not vary.

ANSWER: **rigid body** [or word forms]

[10] The orientation of rigid bodies can be described by angles introduced by this mathematician. He also developed a first-order differential equation describing the rotation of a rigid body.

ANSWER: Leonhard **Euler**

6. All quizbowlers must learn about Marin Barleti someday. Let's hope that day has already come for you. For 10 points each:

[10] In the late 1400s, Marin wrote an eyewitness account of the siege of Shkodra in this country. Between World War I and World War II, this country was led by King Zog.

ANSWER: Albania [or Shqiperia]

[10] Fearing persecution from this polity after it had conquered Shkodra, Marin fled to Venice. This polity was then ruled by Mehmet the Conqueror.

ANSWER: the **Ottoman** Empire [or Devlet-i Aliyye-i **Osmâniyye**]

[10] Marin wrote a biography of this Albanian national hero, who deserted Murad II's armies, then spent several decades ensuring Albanian independence by fighting off Ottoman armies.

ANSWER: Skanderbeg [or Iskander Bey; or George Castrioti; or Gjergje Castrioti]

7. Remnants of existing rocks called clasts form this type of rock when buried, compacted, and cemented. For 10 points each:

[10] Name these rocks formed by lithification after the deposition of material on the Earth's surface.

ANSWER: sedimentary rock

[10] This term refers to the igneous and metamorphic rocks that underlie sedimentary rock in any given area. The rocks that constitute it are very often of Precambrian age.

ANSWER: **basement** complex [or crystalline **basement**]

[10] This geologic law states that, absent a disturbance, older sedimentary rock is found below newer sedimentary rock. It allows one to approximately date strata by knowing the age of their surrounding layers.

ANSWER: law of superposition

8. In the prisoner's dilemma, implicating the other agent is this type of strategy. For 10 points each:

[10] Name these strategies, for which the payoff is always greater than it is for pursuing any other strategy regardless of the strategy pursued by the other agent.

ANSWER: <u>dominant</u> strategies [or word forms; do NOT accept "dominaTED strategies"; accept "weak(ly) <u>dominant</u>" or "strict(ly) <u>dominant</u>"]

[10] This situation results when the prisoners pursue the dominant strategy in the prisoner's dilemma; in this situation, each player's decision is the best response to each other player's strategy.

ANSWER: Nash equilibrium

[10] An extension of Nash equilibrium called quantal response equilibrium seeks to incorporate this phenomenon into the strategy profiles of players. The lambda parameter of the McKelvey-Palfrey QRE model captures this phenomenon.

ANSWER: <u>probabilistic</u> strategies [or "<u>probability</u> of committing an error" or "<u>probability</u> of being irrational" or "<u>probability</u> of being random"; accept "<u>random</u>ness"; prompt on "non-deterministic" or word forms]

- 9. A musical named *The Real Ambassadors*, which was co-written by Louis Armstrong and Dave and Iola Brubeck, was premiered at an annual event held in this city. For 10 points each:
- [10] Name this California city located south of San Francisco, which has hosted the longest consecutively-running jazz festival since 1958. An aquarium named for its namesake bay sits on its Cannery Row.

ANSWER: Monterey

[10] This jazz and R&B singer often performed at MJF. Her greatest hits include "I'd Rather Go Blind", but you may know her best for singing the now-regularly-sampled "Something's Got a Hold On Me".

ANSWER: Etta **James** [or Jamesetta **Hawkins**]

[10] Early in her career Etta James led The Peaches, which mostly performed in this genre, in which a lead sings the vocals, and the rest of the group sings scat-like nonsense syllables as background harmony. Pioneers included Frankie Lymon and the Teenagers and The Five Satins.

ANSWER: doo-wop

- 10. This novel contains the parable "Before the Law," in which a doorkeeper prevents a man from entering a gateway by saying "not just yet." For 10 points each:
- [10] Name this unfinished novel, first published in the magazine *Verlag Die Schmiede* at the behest of Max Brod, that describes the arrest of a man named K.

ANSWER: The <u>Trial</u> [or Der <u>Process</u> or Der <u>Prozess</u>]

[10] This Jewish author of "The Metamorphosis" and "In the Penal Colony" wrote *The Trial*.

ANSWER: Franz Kafka

[10] "Before the Law" was first published in a collection named for this Kafka story, in which a maid named Rosa helps the title character prepare his horses to visit a sick boy.

ANSWER: "A Country Doctor" [or "Ein Landarzt"]

- 11. These structures are classified as single-walled or multi-walled, and can align themselves into "ropes." For 10 points each:
- [10] Name these cylindrical fullerenes, allotropes of carbon that are analogous to spherical "buckyballs."

ANSWER: carbon **nanotube**s [prompt on "CNT(s)"]

[10] Nanotubes are incredibly strong because they are comprised of bonds with this hybridization, which creates trigonal structures with bond angles of 120 degrees.

ANSWER: sp² hybridization

[10] Nanotubes up to half a meter long have been grown via this process, which may be assisted via "electrostatic spray." It involves source gases being used to build up a structure on a wafer of substrate.

ANSWER: chemical vapor deposition [or CVD]

- 12. A journalist named Rufus investigates a militia bent on tearing down the oil industry in this modern-day country in Helon Habila's novel *Oil on Water*. For 10 points each:
- [10] Identify this African country where conflicts with Royal Dutch Shell resulted in the murder of native novelist Ken Saro-Wiwa, who chronicled its civil war in *Sozaboy*. That civil war was also the subject of Chimamanda Adichie's *Half of a Yellow Sun*.

ANSWER: Nigeria [or the Federal Republic of Nigeria]

[10] An earlier coup in Nigeria was early predicted by this man's novel *A Man of the People*. He depicted the country's Christianization in his novel about Okonkwo, *Things Fall Apart*.

ANSWER: Chinua Achebe [or Albert Chinualumogu Achebe]

[10] This 2008 novel by Chris Cleave also takes place during the Niger delta oil conflicts. Its chapters alternate perspectives between Sarah O'Rourke, an English journalist, and its title character, a young Nigerian refugee.

ANSWER: *Little Bee* [or *The Other Hand*]

- 13. William Howard Taft said this man's "opinions are short and not very helpful." For 10 points each:
- [10] Name this Supreme Court Justice who used the metaphor of "shouting fire in a theater" when discussing "clear and present danger" in the 1919 case *Schenck v. United States*. His father was a famous writer.

ANSWER: Oliver Wendell Holmes Jr.

[10] The *Schenck* case concerned the enforcement of the Espionage Act, which was passed during American involvement in this international conflict; the U.S. entered shortly after the sinking of the *Lusitania*.

ANSWER: World War I [prompt on the Great War]

[10] The Court similarly restricted free speech in the 1942 *Chaplinsky* case, which said that certain insulting phrases that caused a "breach of the peace" could be limited. In the decision, this two-word phrase was applied to such language because of a supposed intent to trigger violence.

ANSWER: fighting words

- 14. John Stuart Mill attempted an inductive proof of the Greatest Happiness Principle in a book named for this tradition, whose "preference" variety is advocated by Peter Singer. For 10 points each:
- [10] Name this ethical tradition often summarized by Jeremy Bentham's commitment to "the greatest good for the greatest number."

ANSWER: <u>utilitarian</u>ism [accept word forms]

[10] Utilitarianism is a type of consequentialism, a term coined in this philosopher's essay "Modern Moral Philosophy." This Catholic virtue ethicist first translated Wittgenstein's *Philosophical Investigations* and wrote the monograph *Intention*.

ANSWER: Gertrude Elizabeth Margaret **Anscombe**

[10] Anscombe's husband Peter Geach names a challenge to ethical expressivism with this German logician, who attacked Mill's theory of proper names in "On Sense and Reference." Bertrand Russell derived a paradox from this man's Basic Law V.

ANSWER: Friedrich Ludwig Gottlob Frege

- 15. Answer the following about the animated films of Don Bluth, for 10 points each.
- [10] Wikipedia accurately describes the Burt Reynolds-voiced protagonist of this film as "Charlie B. Barkin, a German Shepherd who is murdered". Charlie returns to Earth to get revenge, but ends up helping out an orphan girl instead.

ANSWER: All Dogs Go to Heaven

[10] Bluth wisely disassociated himself from the, get this, TWELVE musical sequels to this 1988 dinosaur movie, in which Littlefoot, Ducky, Cera, and Petrie seek the Great Valley and avoid getting killed by a "Sharptooth".

ANSWER: The Land Before Time

[10] The only direct-to-video spinoff of one of his movies that Bluth actually directed stars this Hank Azaria-voiced bat, who'd originally appeared as a minion of Rasputin in *Anastasia*.

ANSWER: **Bartok** [or *Bartok* the Magnificent]

- 16. Make like it's 2008 and do your best on this Rob Carson bonus about Biblical apocrypha! For 10 points each:
- [10] A common subject of paintings is an apocryphal prologue to the Book of Daniel about this woman, who is accosted by a pair of elders who attempt to blackmail her for sex. Daniel proves that the elders can't keep their stories straight.

ANSWER: **Susanna** [or **Shoshana**]

[10] Another sweet deleted scene from the Book of Daniel is this story in which Daniel shows the folly of idol worship by proving that hungry priests are faking one such idol and causing another one to explode.

ANSWER: The Idol **Bel and the Dragon** [or **Bel and the Serpent**]

[10] Among the apocrypha included in the KJV are two books of this title that detail a revolt against the rule of Antiochus IV Epiphanes.

ANSWER: Maccabees [accept 1 Maccabees or 2 Maccabees]

- 17. Plant chemical defenses against this kind of behavior can be inducible or constitutive, and strategies in this process include grazing and browsing. For 10 points each:
- [10] Name this kind of behavior in which animals eat plants.

ANSWER: <u>herbivory</u> [accept word forms, like those involving "herbivore"]

[10] This family of astringent polyphenolic compounds serve as plant defenses against herbivory. They can bind and precipitate proteins, helping them to slow rates of foliage and wood decay.

ANSWER: tannins

[10] This hormone, which induces stomatal closure, may sometimes increase plants' susceptibility to pathogens. It helps maintain bud dormancy and is named for its minor role in making leaves fall.

ANSWER: abscisic acid [or ABA; or dormin; or abscisin II]

- 18. Henry James described this novel's character Zenobia as "the nearest approach that" its author "has made to the complete creation of a person". For 10 points each:
- [10] Name this novel in which the Veiled Lady and her controller, the magician Westervelt, are among the characters encountered by Miles Coverdale. It was based in part on its author's experiences at Brook Farm.

ANSWER: The Blithedale Romance

[10] This author of *The Blithedale Romance* appended an essay about his time working in the Boston Custom House to the beginning of his novel *The Scarlet Letter*.

ANSWER: Nathaniel Hawthorne

[10] This Hawthorne collection contains such stories as "Young Goodman Brown", "Rappacini's Daughter", and "Roger Malvin's Burial", all of which were written while Hawthorne was living in the namesake house in Concord. ANSWER: *Mosses from an Old Manse*

- 19. This dynasty is sometimes known as the Liudolfings after its earliest known member, Liudolf. For 10 points each:
- [10] Identify this dynasty, which takes its more common name from the Germanic husband of Adelaide of Italy who was crowned Holy Roman Emperor in 963 CE.

ANSWER: Ottonian Dynasty [accept Saxon Dynasty]

[10] Otto the Great's father was a Duke of Saxony, known as "the Fowler," who had this first name. The fourth Holy Roman Emperor of this name was supposedly forced to go "barefoot at Canossa" to appease Pope Gregory VII

ANSWER: **Henry** [or **Heinrich**; or **Henricius**]

[10] Otto's victory at Lechfeld reversed Magyar gains in Eastern Europe under this 9th-century Hungarian leader, who lent his name to the dynasty that St. Stephen belonged to.

ANSWER: Grand Prince **Arpad** [accept **Arpad dynasty**]

- 20. This composer likely wrote the chanson "Mille Regretz" and used only black notes in his lament for Johannes Ockeghem, "Nymphes des bois." For 10 points each:
- [10] Name this Franco-Flemish composer who wrote an extended setting of the "Pangue Lingua" hymn and used *soggetto cavato* to make the cantus firmus of a piece for the Duke of Ferrara.

ANSWER: **Josquin Desprez** [accept either underlined portion]

[10] Those last two works by Josquin are in this choral genre. These pieces are settings of parts of the Eucharistic liturgy, often in Latin, and they usually include a Kyrie, Gloria, Credo, Sanctus, and Agnus Dei.

ANSWER: masses [or missae]

[10] This Italian Renaissance composer wrote *Missa Papae Marcelli*, which supposedly prevented polyphonic music from being banned at the Council of Trent. Fux codified this man's contrapuntal style in his *Gradus ad Parnassum*.

ANSWER: Giovanni Pierluigi da Palestrina

Extra. Unlike the similar HMIS system, the white section in this system is used to indicate special hazards like oxidizers or asphyxiant gases. For 10 points each:

[10] Identify either this standard or the safety symbol adopted by it, which in addition to the aforementioned section also includes sections denoting flammability, health hazards, and chemical reactivity.

ANSWER: the NFPA diamond [or the fire diamond; or NFPA 704; prompt on "diamond" or "NFPA"]

[10] This diatomic weak acid earns a 4 in the blue section, since its low dissociation constant allows it to penetrate tissue quickly. It can dissolve most oxides and silicates and is especially useful for etching glass.

ANSWER: hydrofluoric acid [or HF]

[10] Substances are ranked in the red flammability section in part based on their value for this quantity, the lowest temperature at which a liquid mixture can ignite in air.

ANSWER: the **flash point** [do not accept "the fire point"]