

## **Bulldog High School Academic Tournament 2016 (XXV): "Pencil and paper ready..."**

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### **Packet 8 Tossups**

1. **This compound causes the ossification of growth plates. It is formed from a compound secreted in theca cells by aromatase. This compound inhibits production of FSH and LH. It is mimicked by the isoflavones found in soybeans. This compound is also mimicked by PCBs and BPA, causing endocrine problems in fish. This steroid promotes the thickening of the (\*) endometrium.** This is the primary hormone administered in replacement therapy during menopause. With progesterone, it's the basis of hormonal birth control and is secreted in the ovaries. For 10 points, name this most important female sex hormone.

ANSWER: estrogens <JR>

2. **A character in this author's first play lives in an apartment with a woman who "cries all the time" and a brutish landlady who makes advances towards him. That play by this author starts with one character learning that another is a publishing executive with two daughters, two cats, and two parakeets. One of his characters pretends to read a telegram about a man killed by (\*) swerving "to avoid a porcupine."** That play by this author is set after a university faculty party; in it, characters constantly pour themselves drinks and play "games" like "Bringing up Baby" and "Get the Guests." For 10 points, name this author of *The Zoo Story* and *Who's Afraid of Virginia Woolf*?

ANSWER: Edward (Franklin) Albee (III) <LL>

3. **The Green Gang broke up a Communist uprising in this city, which was later attacked in the January 28th Incident. This city titled a 1972 Communiqué from Richard Nixon. This city was the site of the first major battle of the Second Sino-Japanese War. In this city, Britain merged its concessions with America to form the International Settlement. Under the premiership of former mayor (\*) Jiang Zemin, this city boasted the highest growth rate in China during the 1990s. Its Bund district is home to many European-style buildings.** For 10 points, name this port on the Yangtze River Delta, the most populous city in China.

ANSWER: Shanghai <LL>

4. **A spacecraft which studied one of these objects is now engaged in the EPOXI mission. Another spacecraft discovered the existence of CHON particles, which are interstellar dust particles originating from these objects. Their interiors were studied by the (\*) Deep Impact probe.** The most recent probe to study one of these objects had its lander module, Philae, touch down in 2014, on the surface of 67P. They are classified as "short-period" or "long-period," and were the focus of the Giotto and Rosetta missions. For 10 points, name these icy bodies such as Hale-Bopp and one named for Edmund Halley.

ANSWER: comets [accept Halley's Comet] <AF>

5. **In one poem, this author declares he will make his lover "A gown made of the finest wool." In the prologue of a play by this man, a man declares, "What right had Caesar to the Empire? Might first made kings." Later in that play by this man, a Turkish slave is seduced by Bellamira, and Lodowick and Mathias kill each other. In a play by this author of "The (\*) Passionate Shepherd to his Love," the title character is killed by a trap he set for Calymath, and Abigail aids her father Barnabas in conspiring against an Ottoman governor.** For 10 points, name this Elizabethan playwright who wrote *The Jew of Malta*.

ANSWER: Christopher Marlowe [accept Kit Marlowe] <LL>

6. This character repeatedly drops a bowl while working for a Gordon Ramsay-inspired character voiced by Tony Bourdain. After being told by the anthropology student Noah that he's now the pirate king, this character teaches a bunch of pirates how to play lacrosse. His wife Katya sacrifices herself to kill his arch-nemesis Barry, but both come back as (\*) robots. This character appeared as Bob from *Bob's Burgers*, since both are voiced by H. Jon Benjamin. This son of Malory has recently fathered a child with his fellow agent, Lana. For 10 points, name this clueless, arrogant namesake spy of an FX animated TV series.

ANSWER: Sterling Archer [accept Codename: Duchess] <JR>

7. When this quantity exceeds 137, the naïve Bohr model predicts that electrons travel faster than the speed of light. The energy of a one-electron atom equals the negative Rydberg energy, times the square of this quantity. The shielding of inner-layer electrons leads to a decreased (\*) effective value for this quantity for outer electrons. This number increases by one in beta decay and decreases by two in alpha decay. It is this value, not the mass number, that determines an atom's elemental identity. For 10 points, identify this quantity symbolized Z, the number of protons in an atom.

ANSWER: atomic number [or nuclear charge; do not accept or prompt on "mass number"] <SE>

8. This city's Municipal House Hall is home to a set of allegorical sculptures in the Art Nouveau style. This city is the site of a building where the assassins of Reinhard Heydrich made their last stand, St. Cyril and St. Methodius Cathedral. A Gothic cathedral in this city features Art Nouveau windows and was only consecrated in 1929. The twelve apostles parade above a medieval Astronomical (\*) Clock in this city's Staré Město ("STAH-ray MYEH-sto"), or Old Town. Its Saint Charles bridge runs over the Vltava River. This city is home to Saint Wenceslas Square and Saint Vitus's Cathedral. For 10 points, name this capital of the Czech Republic.

ANSWER: Prague [or Praha] <LL>

9. MANAKAMANA and *Leviathan* are two recent experimental projects of this kind done by the Sensory Ethnography Lab. Dziga Vertov created one of these works under the aegis of the "Kino-Eye." Frederick Wiseman, the Maysles, and Barbara Koppel are practitioners of an unobtrusive, "direct" style of this art form called (\*) *cinema vérité*. The canonical first film of this kind is *Nanook of the North*. Recent examples of them followed aspiring basketball players, Indonesian perpetrators of genocide, and a man eating an unhealthy amount of McDonalds. For 10 points, name this kind of film created by Michael Moore and Ken Burns.

ANSWER: documentary filmmaking [prompt on more general answers about "film" or "cinema"] <IKD>

10. Improving consumer goods in this country was a major goal of the "New Course." It was targeted in a doctrine ended by the Basic Treaty: the Hallstein Doctrine. Peter Fechter infamously bled out trying to leave this country. This country produced Vita Cola and the Trabant car. This country was led through the '70s and '80s by Erich (\*) Honecker. This country's secret police, the Stasi, was formed while Walter Ulbricht was in power. Many people attempted to escape this country through Checkpoint Charlie. Rapprochement with it was promoted by Willy Brandt. For 10 points, name this Soviet-aligned country that built the Berlin Wall.

ANSWER: East Germany [or GDR; or German Democratic Republic; or DDR; or Deutsche Demokratische Republik; do not accept or prompt on just "Germany"] <JR>

11. This entity is a "complex whole," according to Edward Tylor's definition of it. According to Pierre Bourdieu, one's *habitus* is changed by acquiring the "embodied" form of this kind of capital. Varieties of this entity based on "guilt" and "shame" were distinguished by the author of a book about (\*) *Patterns of [It]*, Ruth Benedict. According to Richard Dawkins, this entity is transmitted via "memes." Responding to popular notions of ethnocentrism, Franz Boas developed *this* kind of relativism. American anthropologists study—for 10 points—what set of behaviors and beliefs that define a society?

ANSWER: cultures [accept word forms like "cultural"; accept cultural capital; accept Patterns of Culture; accept cultural relativism] <IKD>

12. A governor of this state was angered when his successor fired his speechwriter Belle Moskowitz. That governor of this state ran alongside Joseph Robinson and feuded with William McAdoo at the 1924 Democratic National Convention. Frances Perkins headed a Committee on Public Safety in this state, and served in the cabinet of a president from it. Al (\*) Smith was governor of this state. A 1911 disaster in this state was exacerbated by locking women workers into the Triangle Shirtwaist Factory. Franklin Delano Roosevelt was a governor of this state, where Tammany Hall operated. For 10 points, name this state where Black Tuesday devastated Wall Street.

ANSWER: New York State <LL>

13. A necklace belonging to this city's first queen was later used to bribe Eriphyle. Another queen of this city was turned to stone after she watched Artemis and Apollo kill her fourteen children; that queen was Niobe. Dionysus was initially turned away from this city by his cousin, (\*) Pentheus. This city was built by *spartoi* near a spring where a heifer stopped to rest. A succession crisis in this city pitted Eteocles against his brother Polyneices, who was accompanied by six others. This city's most infamous king lifted a plague by answering a sphinx's riddle and married his mother Jocasta. For 10 points, name this Boeotian city founded by Cadmus and later ruled by Oedipus.

ANSWER: Thebes <CX>

14. A dog stoops over a beam to devour a chimera in Francis Bacon's *Fragment* of this scene. Bacon also painted three figures that represent the Furies against a dark orange background in his *Studies for Figures at the Base of [this scene]*. A statue of this scene sits on a mountain in the *Tetschen Altarpiece*. Salvador Dali depicted this scene taking place on the surface of a (\*) hypercube. This scene is at the center of Masaccio's *Holy Trinity*. Marc Chagall painted a "White" one, and Gauguin depicted this scene in a "yellow" painting. This scene was followed by the "deposition" and *Pietà*. For 10 points, name this scene of Jesus dying on the cross.

ANSWER: the crucifixion [accept Fragment of a Crucifixion, Three Studies for Figures at the Base of A Crucifixion, or White Crucifixion] <AF>

15. In a famous scene from this novel, the protagonist goes to see David Garrick perform *Hamlet*, but has to put up with continuous running commentary from his servant. This book opens by promising to give the reader a kind of "menu" of "human nature" at the beginning of each chapter and book. The title character of this novel has his first affair with Molly Seagrim, the daughter of (\*) Black George. The title character of this novel is beaten by Mr. Thwackum and contrasted with his half-brother Master Blifil. In this novel, the title character's guardian, Squire Allworthy, turns out to be his uncle, and he can thus marry Sophia Western. For 10 points, name this novel by Henry Fielding.

ANSWER: *The History of Tom Jones, a Foundling* <JR>

16. During this man's ministry, the Trade Union Congress was created and secret balloting was introduced. This prime minister's monarch claimed "he speaks to me as if I was a public meeting." This man passed Forster's Education Act, and he accused a rival of not protecting Bulgarian Christians. This man was blamed for the abandonment of "Chinese" Gordon in Khartoum, and he targeted a rival in the (\*) Midlothian campaign. During this man's third term as prime minister, he allied with Charles Parnell in support of Irish Home Rule. For 10 points, name this Victorian Liberal Prime Minister of Great Britain who was the rival of Benjamin Disraeli.

ANSWER: William (Ewart) Gladstone <LL>

17. One player of this instrument wrote the jazz standard "Spain" for his group Return to Forever. The best-selling album focused on this instrument is the jazz double album *The Köln Concert*. Another player of this instrument pioneered jazz fusion with funky tracks like "Chameleon" and "Watermelon Man" on the hit album *Head Hunters*. This instrument is played by (\*) Chick Corea and Keith Jarrett, as well as the composer of "Epistrophy" and "Round Midnight," and a musician whose album *Time Out* included "Take Five." For 10 points, Herbie Hancock, Thelonious Monk, and Dave Brubeck all played what keyboard instrument?

ANSWER: pianoforte <JR>

18. This material can be trapped and isolated using a magnetic mirror. Roughly a millionth of a second after the Big Bang, the universe was composed of a type of this material made of quarks and gluons. Charges in this material are evenly distributed on scales larger than the Debye length according to the principle of quasineutrality. A major challenge in producing electricity from (\*) fusion is the confinement of this substance at high temperatures. This substance is briefly created in the vicinity of a lightning strike, and it makes up most of the mass of the sun. For 10 points, identify this ionized material often referred to as a "fourth state of matter."

ANSWER: plasma <SE>

19. This poet described being "bound" by the eyes of his "Lady" on a day when "the sun's rays turned pale with grief for his Maker," i.e. Good Friday. He read a passage from St. Augustine and was inspired to study humanity itself while on top of Mount (\*) Ventoux. This poet addressed "you who hear the sound of scattered rhymes" in the opening poem of his collection *Il Canzoniere*. In his namesake poetic form, an octave is followed by a sestet, for a total of fourteen lines. For 10 points, name this Italian poet and founder of the Renaissance, who pioneered the sonnet with many poems to Laura.

ANSWER: Petrarch [or Francesco Petrarca] <JR>

20. The soul of a primordial one of these animals is referred to in the Zoroastrian term for the "soul of the earth." A deity with the form of this animal has an avatar named Nandini. In Joseph's final dream from prison, a coming drought is symbolized by seven starving examples of these animals eating seven fat ones. In ancient Jewish ritual, a red one of these animals was frequently (\*) sacrificed. This animal lends its name to the second and longest *sura*, which contains the "Throne Verse." While Moses was on Mount Sinai, the Israelites created a statue of one out of gold. For 10 points, name these animals that are sacred in Hinduism.

ANSWER: cows [accept close equivalents like cattle, bulls, calfs or heifers; accept "al-Baqara"] <AF>

*Tiebreaker*

21. **The Avogadro Project has attempted to produce perfect spheres of this element to replace the standard kilogram. This element bonded to four methyl groups forms a common standard for NMR spectroscopy.**

**Slices of this element undergo deposition and photolithographic patterning after being made into (\*) wafers.**

This is the heaviest element in the frustules, or cell walls, of diatoms. This element names the most abundant class of minerals in the earth's crust, where it is the second-most abundant element. On the periodic table, this tetravalent element sits just below carbon. For 10 points, name this metalloid used to make the semiconductors in microchips.

ANSWER: silicon [or Si] <JR>

## Packet 1 Bonuses

1. In one of this man's plays, Lee smashes his typewriter and the vagabond Austin pitches his screenplay idea to Saul. For 10 points each:

[10] Name this contemporary playwright who wrote *True West* and the postmodern play *Buried Child*.

ANSWER: Sam **Shepard** [Samuel Shepard Rogers III]

[10] Shepard was fifty-three before appearing on Broadway, where *this* author got her very first play, which is about the Younger family, staged at the age of twenty-nine. She inspired the song "To Be Young, Gifted, and Black."

ANSWER: Lorraine (Vivian) **Hansberry**

[10] Shepard and Hansberry are both from this country, also home to August Wilson and Arthur Miller.

ANSWER: the United States of **America** [or **U.S.A.**; accept obvious equivalents] <LL>

2. This painting created an enormous stir at the Salon of 1850. For 10 points each:

[10] Name this enormous painting that depicts ordinary bourgeois life as if it were a scene from ancient history. It puts religious figures side-by-side with townsfolk and peasants.

ANSWER: **Burial At Ornans** [or *Un enterrement à Ornans*; accept *A Funeral At Ornans*]

[10] The *Burial At Ornans* was the first major success for this nineteenth-century French artist, who also painted *The Origin of the World*.

ANSWER: (Jean Désiré) Gustave **Courbet**

[10] *The Origin of the World* was a scandalous depiction of Joanna Hiffernan, who had earlier been this American painter's lover. This painter is best-known for *Arrangement in Grey and Black No. 1*, usually called *[His] Mother*.

ANSWER: James (Abbott) McNeill **Whistler** [accept *Whistler's Mother*] <JR>

3. Answer some questions about everybody's favorite human sacrificers, for 10 points each.

[10] This empire in present-day Mexico practiced human sacrifice and was founded in 1428 by Itzcoatl. It had its capital at Tenochtitlan until it was conquered by Hernán Cortés in 1521.

ANSWER: **Aztec** Empire [accept **Excan Tlahtoloyan**; accept **Triple Alliance**]

[10] The ruler of the Aztec Empire at the time of Cortés's 1519 arrival in Mexico was *this* man. He became prisoner in his own palace and died in that same location under dubious circumstances.

ANSWER: **Moctezuma** II [accept **Montezuma**, **Motecuhzoma** Xocoyotzin, or **Moteuczoma**]

[10] Aztec society was organized into *these* clan-like units, a level below the Altepetl "City-state." Their name means "Big House" and they were headed by hereditary chieftains.

ANSWER: **calpulli** <LL>

4. In this play, George Hastings hilariously mistakes Hardcastle's estate for an inn. For 10 points each:

[10] Name this play in which Kate pursues Sir Charles Marlow and Tony Lumpkin steals some jewels.

ANSWER: ***She Stoops to Conquer***

[10] This English-language author of *She Stoops to Conquer* also wrote the novel *The Vicar of Wakefield*.

ANSWER: Oliver **Goldsmith**

[10] Goldsmith wrote *She Stoops to Conquer* during this century. Literary classics of this century include Samuel Johnson's *Dictionary of the English Language* and the *Declaration of Independence*.

ANSWER: **eighteenth** century [accept **1700s**] <LL>

5. You're growing bacteria—name some equipment you might use, for 10 points each.

[10] You might use this popular growth medium, a jelly-like substance made from boiled algae. In this medium, one can use streaking to make pure colonies.

ANSWER: **agar**-agar [accept **agar** plate]

[10] Your agar would probably be placed on *this* kind of small glass dish, normally used by biologists to culture cells.

ANSWER: **Petri** dish

[10] To keep your culture free of contamination, you'll want to sterilize your Petri dish before using it. You can do that using one of these devices, which immerses the dish in hot, pressurized steam.

ANSWER: **autoclaves** <JR>

6. This institution was a centerpiece of the plan outlined in the Beveridge Report. For 10 points each:

[10] Name this institution that was established by Aneurin Bevan.

ANSWER: the **NHS** [**National Health Service**; prompt on descriptions like "British Healthcare System"]

[10] The NHS was established under this Labour Prime Minister of Britain, who took over from Winston Churchill at the end of World War II.

ANSWER: Clement (Richard) **Attlee**

[10] This Conservative Prime Minister of the 1980s reformed the NHS and encouraged Brits to buy health insurance privately. She was known as the "Iron Lady."

ANSWER: Margaret (Hilda) **Thatcher** <JR>

7. This quantity is often expressed as " $\Delta C$  over  $\Delta Q$ ." For 10 points each:

[10] Name this quantity from economics. It represents the cost of producing one more unit of a good.

ANSWER: **marginal cost**

[10] To oversimplify things, companies will produce more of a good when marginal cost is lower than *this* quantity, which is how much a good sells for. In other words, this quantity is how much a good costs a consumer to buy.

ANSWER: **price**

[10] Marginal cost can increase with increasing quantity if production is accompanied by one of *these* side effects. For instance, costs could be driven up if the pollution produced by a factory begins to harm its workers.

ANSWER: **negative externality** [accept word forms] <JR>

8. The Navier–Stokes equations of fluid dynamics are famously difficult to solve, so we'll give you the comparatively easier task of identifying some facts about them, for 10 points each.

[10] The behavior of solutions to the Navier–Stokes equations can be characterized by the Reynolds number, which is low for smooth, laminar flow and high for *this* type of chaotic flow that often makes airplane rides uncomfortable.

ANSWER: **turbulent** flow [or **turbulence**]

[10] The Navier–Stokes equations are essentially conservation laws that guarantee the conservation of momentum, energy, and this *other* property of the fluid.

ANSWER: **mass** [or **matter**]

[10] The equations simplify somewhat if you assume that the flow is incompressible. In mathematical terms, incompressibility is equivalent to setting *this* vector operation of the fluid velocity field to zero.

ANSWER: **divergence** <SE>

9. This book was the subject of a lengthy commentary by Karl Barth. For 10 points each:

[10] Name this first and longest Epistle in the Bible.

ANSWER: Epistle to the **Romans**

[10] The Epistle to the Romans was, like most of the other Epistles, written by this Apostle, who was born Saul. The conversion of this man is a high point of the book of Acts.

ANSWER: **Paul** the Apostle

[10] The Epistle to the Romans was used as a major justification for this article of Lutheran faith. This doctrine states that good works are necessary, but not sufficient to be saved.

ANSWER: **sola fide** [accept descriptive answers like "**salvation by faith alone**" or "**justification by faith alone**"]

<JR>

10. His mother Frigga extracted an oath from all things in the world, except for mistletoe, to never harm him. For 10 points each:

[10] Name this Norse god of light, the son of Odin and Frigga and father of Forseti.

ANSWER: **Baldur**

[10] Baldur's funeral pyre was built on one of these objects named Hringhorn, which was intended to be cast out to sea. Objects of this kind also include one made of finger and toenails and one that could be folded up, Skidbladnir.

ANSWER: **ship** [accept **boat** or other watercraft]

[10] Baldur was killed by this twin of his, who was in turn killed by Vali. This blind god was tricked by Loki into shooting a mistletoe-tipped spear at Baldur.

ANSWER: **Hodur** <CX>

11. This operation has "directional," "partial," and "total" versions in higher dimensions. For 10 points each:

[10] Name this operation that measures the infinitesimal rate of change of a function. This operation and its inverse, integration, are the basis of calculus.

ANSWER: **differentiation** [or "taking a **derivative**"; accept word forms of either]

[10] This rule is used to calculate the derivative of a composition of functions, and is generalized by Faà di Bruno's formula. By this rule, the derivative of "*f*-of-*g*-of-*x*" is "*f*-prime-of-*g*-of-*x*, times *g*-prime-of-*x*."

ANSWER: **chain** rule

[10] The chain rule can be "undone" by using *this* common integration technique.

ANSWER: *u*-**substitution** [or "*u*-**sub**"; accept any answer involving **substitution**] <AF>

12. This member of the Oneida Community became incensed upon not being appointed ambassador to France. For 10 points each:

[10] Name this man who declared "I am a Stalwart of the Stalwarts!" after assassinating a sitting U.S. president.

ANSWER: Charles J. **Guiteau** [Charles Julius Guiteau]

[10] Guiteau assassinated this president, who served only seven months in office. This man's Secretary of State was James Blaine, and he was succeeded by Chester A. Arthur.

ANSWER: James A. **Garfield** [James Abram Garfield]

[10] Garfield was a member of this party, whose "Stalwart" and "Half-breed" factions feuded during the Gilded Age. Almost every Gilded-Age president was from this party, due to the tactic of "Waving the Bloody Shirt."

ANSWER: **Republican** Party [accept **G.O.P.**] <LL>



13. Answer some questions about Aleksandr Solzhenitsyn, for 10 points each.

[10] Solzhenitsyn was influenced by, but opposed to, a "realist" movement named for *this* political ideology. This was the dominant ideology of his home country, the Soviet Union.

ANSWER: **socialist** realism [accept word forms like **socialism**; prompt on "Marxism"; if they say "communism," "Leninism," or "Stalinism," prompt by asking for the broader movement]

[10] Solzhenitsyn is probably best-known for a short novel about a character with this first name, with last name Denisovich. Tolstoy's most famous short story is about the death of a character with this first name.

ANSWER: **Ivan** [accept *One Day In the Life of **Ivan Denisovich*** or *Odin den **Ivana Denisovicha***; accept "The Death of **Ivan Ilyich**" or "Smert **Ivana Ilyicha**"]

[10] Although press restrictions had lifted by his time, many of Solzhenitsyn's works were first read through *this* form of dissident self-publication in the Soviet Union.

ANSWER: **samizdat** <JR>

14. A famous 1946 recording of this opera features Jacques Jansen, Irène Joachim, and Roger Désormière. For 10 points each:

[10] Name this opera featuring the young child Yniold and the King Arkel.

ANSWER: **Pelléas and Mélisande** [or **Pelléas et Mélisande**]

[10] Debussy's *Pelléas and Mélisande* was both heavily influenced by and considered a reaction to the operas of this influential composer. He wrote *The Flying Dutchman* and *Parsifal*.

ANSWER: (Wilhelm) Richard **Wagner**

[10] Like most operatic heroes, Pelléas is played by a singer with this high male voice type. It lies above the baritone range but below altos and countertenors.

ANSWER: **tenor** <JR>

15. This ruler was the last of the Five Good Emperors. For 10 points each:

[10] Name this Stoic philosopher who wrote the *Meditations* and was succeeded by his psychotic son Commodus.

ANSWER: **Marcus Aurelius** (Antoninus Augustus)

[10] This third of the Five Good Emperors quashed the Bar Kokhba Revolt. He deified his lover Antinoüs by placing statues of him throughout the empire, including a famous one at a namesake villa in Tivoli.

ANSWER: **Hadrian** [Publius Aelius Hadrianus Augustus]

[10] This successor of Hadrian is little remembered because not much violent happened during his reign. Like Hadrian, he built a namesake wall in modern Scotland.

ANSWER: **Antoninus Pius** [Titus Fulvus Aelius Hadrianus Antoninus Augustus Pius] <CW>

16. An employee of this company inadvertently released insider data in the same week as he won three-hundred fifty thousand dollars from its main rival. For 10 points each:

[10] Name this Boston-based startup. In 2015, this company announced advertising deals with MLB, ESPN, and the NFL, while its main rival, FanDuel, entered into a similar agreement with the NBA.

ANSWER: **DraftKings**

[10] DraftKings and FanDuel provide a "daily" variety of *this* online activity that has been decried as gambling. In this activity, players "draft" real athletes to their fictitious teams and use statistics to compete.

ANSWER: daily **fantasy** sports

[10] DraftKings and FanDuel argue that, rather than being gambling, daily fantasy is instead described by this three-word phrase, meaning that, just like quizbowl, players use their keen talents and discerning judgment to win.

ANSWER: "a **game of skill**" <SE>

17. A lot of music has been written about videotapes. Answer some questions about those songs, for 10 points each.

[10] This British rock band ended their self-released album *In Rainbows* with the song "Videotape." Their earlier work includes the albums *Kid A* and *OK Computer*, as well as songs like "Creep" and "Fake Plastic Trees."

ANSWER: **Radiohead**

[10] This other British indie band included a song about "watch[ing] things on VCRs" on their 2009 self-titled debut. That album by this group also includes tracks like "Crystalised," "Basic Space," "Islands," and "Intro."

ANSWER: The **xx**

[10] Of course, videotapes feature in The Buggles' "Video Killed the Radio Star." That music video was the first one to be shown on this TV channel, which eventually switched from music videos to shows like *Jersey Shore*.

ANSWER: **MTV** <JR>

18. Answer the following about Aaron Copland, for 10 points each.

[10] In Copland's "popular" middle period, he tried to write music that "sounded like" this home country of his. The result was pieces like *Appalachian Spring* and *Rodeo*.

ANSWER: the United States of **America** [or **U.S.A.**; accept obvious equivalents]

[10] Copland often produced an "open" sound in his harmony by using *this* perfect interval without thirds. Violins, violas, and cellos tune their strings this interval apart.

ANSWER: perfect **fifths**

[10] Copland studied under this famous French composition teacher, who taught several generations of major musicians, including Elliott Carter, Dinu Lipatti, and Quincy Jones.

ANSWER: (Juliette) Nadia **Boulanger** <JR>

19. Best yields in the Fischer esterification are obtained when a Dean–Stark apparatus is used to remove this substance. For 10 points each:

[10] Name this substance whose *K<sub>a</sub>* at STP is "1-over-55, times 10-to-the-negative-fourteenth power." This substance is considered the "universal solvent," and its chemical formula is "H<sub>2</sub>O."

ANSWER: **water** [or **aqua**]

[10] Water spontaneously undergoes this process, in which two copies of itself form two ions, one positive and one negative.

ANSWER: **autodissociation** [or **autoionization**; or **self-ionization**; prompt on "dissociation" or "ionization"]

[10] Another negative form of hydrogen is the hydride ion. A hydride of this metal and aluminum forms a frequently-used strong reducing agent

ANSWER: **lithium** [or **Li**; accept "**lithium** aluminum hydride"] <AF>

20. Answer some questions about novelist Naguib Mahfouz, for 10 points each.

[10] Mahfouz wrote a sequel-companion to this classic short story collection of Arabic literature. This collection includes the stories of Scheherazade, Sinbad, and others.

ANSWER: *One Thousand and One Nights* [or *Arabian Nights*; or *kitab alf layla wa-layla*]

[10] Mahfouz's *Miramar* is set in this Egyptian city, which was the home city of Constantine P. Cavafy. Lawrence Durrell wrote a "Quartet" about this home city of the scholars Ptolemy and Euclid.

ANSWER: **Alexandria** [accept *The Alexandria Quartet*]

[10] The original title of Mahfouz's allegory *Children of Gebelawi* refers to one of these places. One of Mahfouz's most famous early novels depicts one of these places named Midaq and its many inhabitants.

ANSWER: **alley** [accept *Children of the Alley*; accept *Midaq Alley*; accept *Awlad Haretna*; accept *Zuqaq al-Midaq*] <JR>

*Tiebreaker*

21. James Wood introduced the term "hysterical realism" in an essay about this author. For 10 points each:

[10] Name this contemporary half-Jamaican British novelist. Her novels include *NW* and *White Teeth*.

ANSWER: Zadie **Smith**

[10] In *White Teeth*, Marcus Chalfen experiments with giving these animals cancer. Lennie and George dream of "living off the fatta' the land" in a Steinbeck novella titled *Of [these animals] and Men*.

ANSWER: **mice** [accept Future**Mouse**; accept *Of **Mice** and Men*]

[10] Zadie Smith's 2005 novel *On Beauty* was shortlisted for this major literary prize, which is awarded every year for the best fiction published in the UK. In 2015, Marlon James won this prize for *A Brief History of Seven Killings*.

ANSWER: Man **Booker** Prize for Fiction <JR>