Eisenhower Memorial Tournament 2017: Dunning-Kruger? I Hardly Know 'Er! Questions by Vasa Clarke, Ryan Humphrey, Alex Damisch, Jacob O'Rourke, Gabe Guedes, Charles Hang, and Alex Dzurick

Packet 9: Tossups

- 1. One process in this organelle is inhibited by the transfer of a certain compound onto dolichol phosphate in the mechanism of action of the drug Tunicamycin. A common method of studying this organelle begins by fragmenting cells in solution, centrifuging the solution, and then examining the resultant "microsomes" on a sucrose gradient. URP signaling in this organelle is activated by the stress-induced sequestering of the protein (\*) BiP, and the heterotrimeric protein Sec61 is a doughnut-shaped translocon located in the membrane of this organelle. In eukaryotes, signal recognition particle functions explicitly to target proteins to this organelle, and proteins with a KDEL motif will be returned by retrograde transport to this organelle from the Golgi Body. For 10 points, name this organelle whose "rough" variety is distinguished by the presence of ribosomes.

  ANSWER: endoplasmic reticulum [accept ER, smooth ER, or rough ER] < RH, Biology>
- 2. This ruler had church reform laws passed by a council called the Stoglav, or Hundred Chapters Council. During his reign, the Cossack Yermak won a battle at Qashliq ["kahsh-LEEK"], which led to the conquest of Siberia. This ruler undertook a military action after the defection of the archbishop Pimen. This ruler legendarily blinded the architect of a cathedral designed to commemorate his conquest of (\*) Kazan. This ruler ordered the building of St. Basil's Cathedral, and Novgorod was sacked by his secret police, the oprichniki ["oh-PREECH-neek-ee"]. This tsar's murder of his heir led to his succession by Fyodor I and the beginning of the Time of Troubles. For 10 points, name this Tsar of Russia, who was known for his cruelty.

  ANSWER: Ivan the Terrible [or Ivan IV; or Ivan Grozny; or Ivan the Awesome; prompt on "Ivan"] <JO, European History>
- 3. Some of these beings were created after Zeus accidentally ejaculated on the island of Cyprus. An enemy of these creatures either died or was turned into a small brown bird after killing five of them and then being smashed into the ground by fir trees. The ill-advised consumption of some sacred (\*) wine caused several of these creatures to attack Heracles, who died after wearing a shirt coated in the poisoned blood of one of these creatures. One of these creatures was placed in the sky as a constellation after he renounced immortality. That famously wise example of these beings, who did not participate in the war with the Lapiths, was named Chiron. For 10 points, name this beings from Greek mythology whose bodies were half-man, half-horse.

  ANSWER: centaurs [or kentauros] < VC, Myth>
- 4. The base of this geological period's Bashkirian age is marked by the first appearance of the conodont species *D. noduliferus*. One event in this period is a fifteen-million-year break in the fossil record that may have been caused by a drop in atmospheric oxygen levels, and is known as Romer's gap. This period also saw the emergence of the Uralian and Appalachian orogeny. The first amniotes evolved during this period, which also experienced an extinction event known as its namesake (\*) Rainforest collapse. This period, which featured such massive species as a dragonfly with a two-foot wingspan is further divided in the Mississippian and Pennsylvanian. For 10 points, name this geological period that followed the Devonian Period and is known for its many coal-forming swamps.

Answer: Carboniferous Period < RH, Other Science>

- 5. This island is separated by a very narrow strait from the much smaller Yos Sudarso Island. This island is the only place where all three species of cassowary are found in the wild. The upland regions of this island are the native habitat of Doria's tree-kangaroo. This island's Owen Stanley Range was crossed by the Bulldog Track, whose construction dates to World (\*) War II. After the Amazon rainforest, this island is home to the estimated highest number of uncontacted tribes, and this is the most linguistically diverse place in the world. Part of this island was once referred to as Irian Jaya, and it is separated from a southern neighbor by the Torres Strait. For 10 points, name this island which is shared between Indonesia and the country called Papua [this name]. ANSWER: New Guinea <VC, Geography>
- 6. Records of this ruler's navy were collected on the Anthony Roll and include warships such as the *Antelope* and *Salamander*. This author of the anti-Lutheran tract *Assertio septem sacramentorum* abolished the collection of Peter's Pence. After the passage of the Suppression Acts, this monarch faced domestic rebellion

**led by Robert Aske in the Pilgrimage of** (\*) Grace, which was in response to this ruler's dissolution of his country's monasteries. This was the highest-ranked person excommunicated by Pope Clement VII as a result of this ruler's Act of Supremacy and his subsequent divorce and remarriage to Anne Boleyn. For 10 points, name this king of the Tudor dynasty who founded the Church of England as part of a dispute over his six wives.

ANSWER: **Henry VIII** of England <VC, Misc/Other History>

7. In a soliloquy, the title character of this play bids "economy farewell" before claiming that "a sound magician is a demi-god." At the end of this play, a chorus claims that "burned is Apollo's laurel-bough" and exhorts wise men "only to wonder at unlawful things." This play exists in A and B text versions that were published 12 years apart, with the latter extending a scene in which two characters invisibly snatch dishes from attendants and box the (\*) pope's ears. An old man attempts to persuade the title character of this play to repent after he summons Helen of Troy at the behest of some scholars. The title character of this play asks the demon Mephistopheles to offer his soul to Lucifer in exchange for 24 years of service. For 10 points, name this play by Christopher Marlowe.

ANSWER: Doctor Faustus < GG, British Lit>

8. Composer and type of piece required. One G major piece of this type sometimes called "How Do You Do?" unusually begins with a perfect authentic cadence, and its last movement is a theme and variations using a gigue ["ZHEEG"] rhythm. One of these pieces in this composer's Opus 33 earned its nickname because of a three-measure grand pause false ending before two measures of the main theme are restated; that piece's nickname is (\*) "The Joke." Many of these works were written for the composer's patron, Prince Nikolaus Esterhazy. This composer used his own Kaiserleid for Francis II for a theme and variations in the second movement in one of these pieces called the "Emperor." For 10 points, name these works for four string players by the composer of The Creation.

ANSWER: string quartets by Franz Joseph Haydn [prompt on partial answer] <AWD, Music>

9. One quantity describing this phenomenon may be solved for directly with either the Haaland equation or the Goudar-Sonnad equation. A Stribeck curve depicts this phenomenon abnormally decreasing as a function of velocity. This phenomenon, which is described by the integrable LuGre model, is also modeled in a cylindrical pipe by a quantity that appears on the y-axis of a (\*) Moody diagram. The angle of repose is equal to the arctangent of a constant measuring this phenomenon. This phenomenon is proportional to applied load and is independent of contact area according to two laws named for Amonton. The magnitude of this phenomenon is equal to its namesake coefficient times the normal force. For 10 points, name this resistive force between two surfaces in contact.

ANSWER: friction force <RH, Physics>

10. Chemical instruments sit on a velvet cloth in this artist's double portrait of *Monsieur and Madame Lavoisier*. A woman in white stands with her arms outstretched above her children in the midst of a battle scene in this artist's *The Intervention of the Sabine Women*. In one work by this artist, a nurse holds two boys as (\*) three Roman guards salute a man who holds three swords in his left hand. A bloody knife in one work by this artist lies next to the title revolutionary slumping towards the viewer with a quill in his right hand and a note in his left. For 10 points, name this artist of *The Oath of the Horatii* ["hoar-AY-shee-eye"] and *The Death of Marat*. ANSWER: Jacques-Louis <u>David</u> <AWD, Painting>

11. One poem by this author describes how the "earth was stained with unspeakable crime / And all chased justice from their desirous minds" as part of the coming of the Iron Age. In another poem, this author implores, "let us judge all the rumors of old men / To be worth just one penny" and asks a woman to give him "a thousand kisses, then another hundred." Another poem by this author tells its addressee, "take from my hands these sad gifts covered in tears" and ends with the phrase (\*) "ave atque vale," or "hail and farewell." In addition to that poem about his brother's death, this author wrote a poem that singles out Aurelius and Furius for criticizing his poetry and begins with a threat to "sodomize" the two men. For 10 points, name this Roman poet who addressed many poems to his lover Lesbia.

ANSWER: Catullus < GG, World/Other Lit>

12. This country's World War II Expeditionary Force sarcastically nicknamed themselves the "smoking snakes." A massive loan to support a frog farm owned by a politician's wife resulted in this country finally dismantling a development agency called SUDENE ["soo-DEH-nee"]. Massive inflation in this country was mostly fixed by the "Plano Real," which was developed by finance minister Fernando (\*) Cardoso. The end of this country's "coffee with milk" policy triggered a military coup led by Getúlio Vargas, who became dictator of this country. Earlier, a ruler of this country ended slavery with legislation like the Law of the Free Womb. For 10 points, name this South American country whose Emperor Pedro II ruled from Rio de Janeiro.

ANSWER: <u>Brazil</u> <VC, World History>

13. One term from this law can be described as the limit as q approaches zero of the surface number density over the number density at free space. A term for the salt molality is multiplied by the Sechenov constant in one modification of this law for ionic solutions. One constant from this law also appears in the formulation of its namesake's adsorption isotherm. Carbon (\*) dioxide deviates from the trend of this law's namesake coefficient increasing with larger molecular weights. Replacing that constant from this law with a term for vapor pressure produces Raoult's law. The standard formation of this law includes terms for mole fraction solubility and its namesake's constant. This law may also be applied to explain decompression sickness in divers. For 10 points, name this law stating that the amount of dissolved gas in a liquid is proportional to its partial pressure.

ANSWER: Henry's law <RH, Chemistry>

14. Although this person lived long before Muhammad, Surah Al Imran, Ayah 67 refers to this figure as "neither a Jew nor a Christian" but "an upright man" and "a Muslim." He's not Moses, but this man responded to a certain command from God with the word *hineni*, or "here I am." In Hebrews 11 and Acts 7 this man is given as an example of great faith, because he obeyed when God told him to (\*) "Leave your country and your relatives and go to the land that I will show you." In Luke, faithful Jews are called "sons" or "daughters" of this man, and in a prayer that observant Jews say 3 times a day, God is mentioned as the God of this man, his son, and Jacob. This was the first person to be circumcised, and he nearly sacrificed his son Isaac to God.

ANSWER: Abraham [or Ibrahim or Abram] <AWD, Religion>

15. One of these objects that uses two counterweights was designed by Richard Sapper for Artemide in 1972 and was called the Tizio ["TIZ-joe"]. A famous quote that mentions these objects was spoken to the editor of the Westminster Gazette, John Alfred Spender, by Sir Edward Grey. Allegations that the Nazis made some decorations for these objects out of (\*) Jewish corpses may have partly inspired Ed Gein to do the same thing with his victims. Sir Humphry Davy designed one of these objects that uses a mesh screen as a flame arrestor and was meant for use in coal mines. A man once said that these objects "are going out all over Europe, we shall not see them lit again in our lifetime." For 10 points, name these objects referenced on the eve of World War I that were often lit with whale oil.

ANSWER: <a href="mailto:lamps">lamps</a> [accept <a href="mailto:lamps">lamps</a> shades] <GG, Other>

For 10 points, name this father of Judaism.

- 16. This thinker focused on situations when actors comply with principles and societies cooperate as part of ideal theory. This philosopher put forth principles such as "peoples have a duty to assist other peoples" and "peoples have the right of self-defense but no right to war" in *The Law of Peoples*. In the work of this thinker, peoples whose beliefs are coherent have reached reflective (\*) equilibrium. This philosopher's work on morality suggests the thought experiment where decision-makers are blind to their future position in a society as part of his "veil of ignorance." For 10 points, name this American philosopher who wrote *A Theory of Justice*.

  ANSWER: John Bordley Rawls <VC, Philosophy>
- 17. A character in this novel asks himself "Why do you laugh? Is it because you hate the sound of laughing?" in a chapter that ends with him repeating the word "yes." A priest in this novel worries about a woman revealing their affair on her deathbed as he crosses a river on the way to her home and is named Whitfield. A chapter in this novel that begins (\*) "I made it on the bevel" and consists of a numbered list is followed by a chapter containing only the sentence "My mother is a fish." In this novel, Jewel runs away after learning his horse was sold, and Anse takes away Dewey Dell's money to buy "new teeth" after burying his wife. For 10 points, name this William Faulkner novel in which the Bundren family transports Addie's coffin to its resting place in Jefferson. ANSWER: As I Lay Dying <GG, American Literature>
- 18. This politician authored a letter defending America's right to interfere in the Hungarian Revolution of 1848 while still maintaining neutrality. This author of the Hulseman Letter led the prosecution of the men who were accused of attempting to rescue Shadrach Minkins, an escaped slave. This man declared that "there are those who love it" while defending his alma mater in (\*) Dartmouth College v. Woodward, and he lost his Senate seat after he defended the Compromise of 1850 in his Seventh of March speech. This man declared "Liberty and Union, Now and Forever, One and Inseparable" in his Second Reply to Hayne. For 10 points, name this Massachusetts Senator, who was a member of the "Great Triumvirate" with Henry Clay and John C. Calhoun. ANSWER: Daniel Webster < JO, American History>
- 19. In one part of this text, a king goes from bed to bed feeling the hearts of various men to see which of them slept with his queen before shearing the culprit's head. In another section of this text, a group of women ask a girl "how the Devil was put in hell" after she wanders into the desert, where she is taught to throw herself naked on her knees by the hermit Rustico. One character in this text lies to a friar while he is administering (\*) last rites, leading the town to revere him after his death. In the final story of this collection, Dioneo tells of a man who disguises his daughter as his new bride to test his wife Griselda. For 10 points, name this collection of stories told by Florentines fleeing the Black Death written by Giovanni Boccaccio.

  ANSWER: The Decameron <GG, European Lit>
- 20. A work attributed to this artist was mentioned only in passing in the writing of Pausanias, and its missing right arm may have once held a bunch of grapes. One work by this artist depicts a figure leaning one arm against a tree and an outstretched hand that may have once held an arrow; that work is called (\*) *Apollo Saurok-tonos*, or lizard-slayer. Athenaeus wrote that one of this man's sculptures was inspired by Apelles' lost painting of the same figure "rising from the sea," and Pliny the Elder said that many had sailed to a certain isthmus to see this artist's sculpture of a goddess casting away her drapery, *Aphrodite of Knidos*. For 10 points, name this ancient Greek sculptor *of Hermes Bearing the Infant Dionysus*.

ANSWER: Praxiteles of Athens < AWD, Other Art>

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Packet 9: Bonuses

- 1. The Panchen Lamas are considered to be incarnations of this person, who is venerated in the act of nianfo. For 10 points each:
- [10] Name this Buddha who rules over the western paradise of Sukhavati. In many traditions, chanting this Buddha's name several times is required to be reborn alongside him.

ANSWER: Amitabha [or Amida; or Amitayus; or Dharmakara]

[10] Amitabha's domain of Sukhavati is an example of one of these places, where people are reborn into the calyx of a lotus flower and live free of suffering. Shambhala is another example of these locations.

**ANSWER: Pure Land** 

[10] Pure Land Buddhism is a tradition in Mahayana Buddhism, although it sometimes also influences the Vajrayana sect, which is popular in Tibet and this other country. The Dalai Lama announced in 2016 that a search has begun in this country for the reincarnation of the Bogd Khan.

ANSWER: Mongolia < VC, Religion>

- 2. This thinker was inspired by a report delivered by Talleyrand to argue for broader education opportunities for her gender. For 10 points each:
- [10] Name this author of A Vindication of the Rights of Woman.

ANSWER: Mary Wollstonecraft

[10] Wollstonecraft later wrote her A Vindication of the Rights of Men upon being inspired by this conflict which also inspired Thomas Paine's Rights of Man.

**ANSWER: French Revolution** 

[10] Wollstonecraft's A Vindication of the Rights of Men and Paine's Rights of Man were both more or less written in response to this British conservative thinker's Reflections on the Revolution in France, which were odd because this man had earlier supported the colonists during the American Revolution.

ANSWER: Edmund Burke <VC, Philosophy>

- 3. As she dies, this character says "thy words of hatred are like lead within my heart" before asking "was there not, from the first, more poison in thy nature than in mine?" For 10 points each:
- [10] Name this title character of a story in which Professor Baglioni gives Giovanni a vase crafted by Cellini that contains a supposed antidote that ends up killing this character in her father's garden.

ANSWER: Beatrice Rappaccini [or Rappaccini's daughter, prompt on "Rappaccini"]

[10] "Rappaccini's Daughter" was written by this author who described the travails of Hester Prynne after her affair with Arthur Dimmesdale in *The Scarlet Letter*.

ANSWER: Nathaniel **Hawthorne** 

[10] This other Hawthorne character is criticized for "fail[ing] to look beyond the shadowy scope of time, and...to find the perfect future in the present" in his attempts to get rid of something he calls the "bloody hand."

ANSWER: Aylmer [from "The Birthmark"] < GG, American Literature>

- 4. These diagrams were first created by Duke University biochemist Jane Richardson. For 10 points each,
- [10] Name these models of protein folding that preserve position and smooth the protein backbone. These diagrams are best-known for depicting beta-sheets as arrows, and alpha helices as coiled examples of their namesake objects. ANSWER: **ribbon diagrams**
- [10] By convention, ribbon diagrams for proteins containing metal ligands typically represent those metals with one of these three-dimensional objects. These 3-D objects also represent the atoms in most chemical modelling kits.

ANSWER: spheres [accept "balls" or other clear knowledge equivalents, prompt on circle]

[10] This protein motif commonly found in dimeric transcription factors is easily distinguished when examining a protein's ribbon diagram. Proteins containing this motif include c-myc, TCF4, and neurogenin-1.

ANSWER: basic helix-loop-helix motif <RH, Biology>

- 5. His *La Cheminé du Roi René* is a wind quintet whose playful third movement is called *Jugglers*. For 10 points each,
- [10] Name this French composer and member of Les Six who also wrote *The Ox on the Roof*.

ANSWER: Darius Milhaud

[10] This Second Viennese School member and composer of *Pierrot Lunaire* ["pee-air-OH loo-NAIR"] invented the twelve-tone technique; one of his first twelve-tone works was his *Blaserquintett*, or wind quintet.

ANSWER: Arnold Schoenberg

[10] Paul Hindemith wrote eight chamber works that he gave this name, meaning "chamber music"; the *Kleine* ["KLY-nuh"] piece is a five-movement woodwind quintet. Its short third movement includes descants for each instrument, interrupted by a rhythmic ostinato.

ANSWER: Kleine Kammermusik < AWD, Music>

- 6. Name some things about the representation of Jews in operas, for 10 points each:
- [10] Giuseppe Verdi wrote this opera about the title king's assault on the city of Jerusalem. This opera's main character is struck ill in Act II, but his prayer to Jehovah in the aria *Dio di Giuda* is answered.

ANSWER: Nabucco

[10] This incredibly eerie twelve-tone opera was written in response to rising anti-Semitism in pre-war Germany. In this unfinished opera's second act, one of the two title characters meets with seventy elders at the Mount of Revelation.

ANSWER: Moses und Aron

- [10] This composer wrote the then-salacious opera *Salome* ["SAL-oh-may"], in which several Jews argue about the nature of God. Austrian-Jewish writer Stefan Zweig wrote the libretto for this composer's opera *The Silent Woman*. ANSWER: **R**ichard **Strauss** [prompt on "Strauss"] < AWD, Other Art>
- 7. This equation includes terms for the saturation current, the thermal voltage, and the ideality factor. For 10 points each,
- [10] Name this equation created by a former Bell Laboratories employee to describe the I-V characteristic of a certain device when it is experiencing either forward or reverse bias.

ANSWER: Shockley equation [prompt on, but otherwise DO NOT MENTION, "diode law"]

[10] The Shockley equation is used to describe the ideal variety of these devices. The 2014 Nobel Prize in physics was given for research into creating a blue variety of these devices, which also exist in "light-emitting" varieties.

ANSWER: diodes [or light-emitting diodes]

[10] For a standard p-n diode, the maximum reverse bias voltage that can be applied is limited by the amount of this process. This process is characterized by a rapid increase in current under reverse bias.

ANSWER: breakdown [or breakdown voltage] <RH, Physics>

- 8. The president of this country, Mohamed Abdullahi Mohamed, is known by his nickname Farmajo, and shortly after his inauguration he picked oil executive Hassan Ali Khaire as his Prime Minister. For 10 points each:
- [10] Name this country that is currently under threat of famine. Operation Indian Ocean was launched by this country's government against al-Shabaab, a militant group active in it.

ANSWER: Federal Republic of **Somalia** [or Jamhuuriyadda Federaalka **Soomaaliya**]

[10] Somali groups engaged in this task have been a constant threat to shipping. Captain Richard Phillips chronicled his interactions with a group engaged in this action while aboard the MV *Maersk Alabama*.

ANSWER: piracy [accept word forms]

[10] Somalia currently has this status, which is given by the UN to countries that exhibit poverty, human resource weakness, and economic vulnerability. Samoa graduated from this status in 2014.

ANSWER: Least Developed Countries [or LDC] <GG, Geography/Current Events>

- 9. If this man had been wearing armor, he might have survived personally leading a cavalry charge at the Battle of Lützen. For 10 points each:
- [10] Name this "Lion of the North," a Swedish king of the Vasa dynasty who intervened on behalf of the Lutherans during the Thirty Years' War.

ANSWER: Gustavus Adolphus [or Gustav II Adolf; prompt on "Gustav" or "Gustavus"]

[10] Gustavus Adolphus failed to prevent the horrifying sack of this German city in 1631. This city was plundered by soldiers under the command of the Count of Tilly.

ANSWER: Magdeburg

[10] Also present at the sack of Magdeburg was this German cavalry officer, who charged without orders at the Battle of Breitenfeld and who, like Gustavus Adolphus, was mortally wounded at Lützen.

ANSWER: Gottfried Heinrich Graf zu Pappenheim < VC, European History>

- 10. After this character claims that "I don't know anything anymore," another character responds that "it would be pretty hopeless if that were true." For 10 points each:
- [10] Name this character who spits in the face of Sam, who in turn wipes his face with a handkerchief and calls him a coward. The return of this character's racist father from the hospital hangs over the play in which he appears.

ANSWER: Hally [or Master Harold]

[10] Master Harold...and the Boys is a play written by this South African author who also wrote The Island and Sizwe Bansi is Dead.

ANSWER: Athol Fugard

- [10] In *Blood Knot*, the main difference between brothers Morris and Zachariah is that Morris is able to do *this action*, which Zachariah cannot. Thus, they agree to have Morris meet Zachariah's pen-pal when she arrives. ANSWER: **pass** for white [accept synonyms such as "**pretend to be white**"] <GG, World/Other Lit>
- 11. In some implausible accounts, Perseus turned this god into stone because this god refused him hospitality. For 10 points each:

[10] Name this god who was punished for rebellion by having to hold the heavens on his shoulders for all eternity.

ANSWER: Atlas

[10] Atlas was a member of this ancient class of gods, who ruled before the Olympians and whose members included Prometheus, Hyperion, and Kronos.

ANSWER: Titans

[10] This female Titan, who personified divine law, may have given birth to the Horae through a relationship with Zeus. She is often depicted holding the scales of justice.

ANSWER: Themis < VC, Mythology>

- 12. Name some things about painters who were active in the Netherlands, for 10 points each:
- [10] Though he's mostly known for his wood cuts, Albrecht Dürer also painted a *Self-Portrait at 28*, in which he bears a striking resemblance to depictions of this religious figure. Dürer also painted this figure *Among the Doctors*. ANSWER: **Jesus Christ** [accept either or any reasonable equivalent]
- [10] A crowned Jesus is also painted holding a scepter at the center of this Netherlandish painter's most famous work, now housed in the Cathedral of St. Bavo in present-day Belgium.

ANSWER: Jan van Eyck [the work is the *Ghent Altarpiece*]

- [10] This man's triptych "The Last Judgment" depicts Jesus seated atop a rainbow above an armored St. Michael weighing people on a human-sized balance. He also carved and painted a reliquary for the relics of St. Ursula. ANSWER: Hans **Memling** <AWD, Painting>
- 13. The speaker of one poem in this collection imagines living "like a voluptuous cat at the feet of a queen" and sleeping "nonchalantly in the shade of" the title figure's breasts like a "peaceful hamlet." For 10 points each: [10] Name this collection that includes "The Giantess." Another poem in this collection begins by listing "folly, error, sin, avarice" and ends by claiming the "hypocrite reader" as "my likeness" and "my brother."

ANSWER: Les fleurs du mal [or The Flowers of Evil]

[10] Les fleurs du mal was written by this French Symbolist poet and frequent translator of Edgar Allan Poe.

ANSWER: Charles Baudelaire

[10] Baudelaire dedicated *Les fleurs du mal* to this "impeccable poet" and "perfect magician of French letters" who described the title entity "Seeping over the windowsill, / Like frosted breath" in his poem "Smoke." ANSWER: Théophile **Gautier** < GG, European Lit>

- 14. These compounds and Hauser bases may exist in a state of spontaneous dimerization known as Schlenk equilibrium. For 10 points each.
- [10] Name these magnesium halide reagents typically used to form a new carbon-carbon bond with a carbonyl carbon.

ANSWER: Grignard reagents

[10] One way to drive Schlenk equilibria to the right and precipitate the magnesium halide is to add this heterocyclic compound that contains two oxygen atoms. As a solvent, this hygroscopic compound is sometimes substituted for THF, and it is sometimes used as an internal standard in NMR.

ANSWER: 1,4-dioxane [accept 1,2 or 1,3 dioxane as well, even though they're rarely used)

[10] Another class of organometallic reagents utilizes this lightest alkaline metal, which also forms a counter-ion with aluminum hydride.

ANSWER: <u>lithium</u> <RH, Chemistry>

- 15. Chinese sources speculated that this polity bred underwater sheep which produced "sea silk" imported from this place. For 10 points each:
- [10] Name this empire known in the classical Chinese era as "Daqin," which was separated from China by the steppes of Central Asia and the Parthian Empire.

ANSWER: **Rome** [or the **Roman Empire**]

[10] Contact between China and Rome was mostly along ocean trade routes although this land route was also used for international trade. Marco Polo reached China by travelling east along this trade route.

ANSWER: Silk Road

[10] Other than silk, this commodity was traded on the Silk Road as it was imported to China from the Ferghana Valley. These things were usually traded for tea in order to equip Chinese armies.

ANSWER: horses < VC, World History>

- 16. A character in this work meets an astronomer who believes that he has been given the power to control the weather and the seasons, which is described as a "disorder of intellect." For 10 points each:
- [10] Name this Oriental tale in which the title Abyssinian prince escapes from the "happy valley" with the poet Imlac and his sister Pekuah, whereupon he sets out to discover someone who is truly happy.

ANSWER: The History of Rasselas, Prince of Abissinia

[10] Rasselas was written by this English author who co-edited a 1765 edition of *The Plays of William Shakespeare*, ten years after his *Dictionary of the English Language*.

ANSWER: Samuel Johnson

[10] This Scot described showing his residence at Auchinleck House to Johnson in his *Journal of a Tour to the Hebrides* and published his seminal *Life of Samuel Johnson* in 1791.

ANSWER: James Boswell < GG, British Lit>

- 17. The losing commanders at this battle rejected the advice of Alcibiades to move their base to Sestos. For 10 points each:
- [10] Name this last major battle of the Peloponnesian War. The victorious Spartan navy at this battle was led by Lysander.

ANSWER: Battle of Aegospotami

[10] After the battle of Aegospotami, the Spartans installed the Thirty Tyrants, a pro-Spartan government that ruled this democratic city-state. This city-state fought Sparta in the Peloponnesian War.

ANSWER: Athens [or Athenai; or Athinai]

[10] Earlier during the Peloponnesian War, Alcibiades led a disastrous expedition to capture Syracuse, which is located on this island.

ANSWER: Sicily [or Sicilia; or the Sicilian Expedition] < JO, Misc./Other History>

- 18. Shawn and Gus join two film students named Kate and Chavo in an episode of *Psych* devoted to this task. For 10 points,
- [10] Name this task. In the *Simpsons* episode "The Call of the Simpsons", a group of men performing this task mistake Homer for its central figure after a photo of Homer covered in mud becomes popular.

ANSWER: <u>finding Bigfoot</u> [or "<u>filming bigfoot</u>" or any reasonable equivalent, including use of the word "<u>sasquatch</u>"]

[10] *Finding Bigfoot* is also the name of a hilariously awful TV show featuring the cryptozoologists Matt Moneymaker and "Bobo" that is entering its 8<sup>th</sup> season on this television channel. This channel also airs the shows "River Monsters" and "My cat from hell".

ANSWER: Animal Planet

[10] One running joke on the show "How I Met Your Mother" was that this character played by Jason Segal believed in bigfoot. That belief is referenced in the second version of the joking folk song "[this character] versus the machines".

ANSWER: Marshall Erikson [accept either] <RH, Trash>

- 19. This scandal was investigated in the Senate by Thomas Walsh, who questioned the sudden rapid development of a privately owned ranch. For 10 points each:
- [10] Name this scandal in which Secretary of the Interior Albert Fall became rich after taking bribes related to the lease of U.S. Navy petroleum reserves.

ANSWER: **Teapot Dome** 

[10] Teapot Dome tarnished the reputation of this man, whose administration's numerous scandals were not entirely uncovered until this man's sudden death and replacement by Calvin Coolidge.

ANSWER: Warren Gamaliel Harding

[10] Warren Harding appointed the controversial Harry Daugherty to this Cabinet position, which resulted in Daugherty probably using this position to obstruct the investigations into Harding's scandals.

ANSWER: Attorney General <VC, American History>

20. For 10 points each, name some things about basic units in mathematics:

[10] This is the most basic unit in its namesake theory, and is defined as a collection of objects. Georg Cantor was famous for his theories of infinite examples of these.

ANSWER: sets

[10] A set with a certain operation is a group if it possesses the following properties: the validity of associativity and inverses, having an identity element, and this property, which says that for any two elements in the set, the result after performing the set's operation on the two elements is also in the set.

ANSWER: **closure** [or being **closed**]

[10] For a group G and its subgroup H with elements  $h_i$  ["little h sub i"], the set defined as  $h_i$  x ["little h sub i x"] is known as this, the translation of the subgroup H by an element of G.

ANSWER: right coset [prompt on "coset," do not accept "left coset"] <AWD, Other Science>