

Bulldog High School Academic Tournament 2021 (XXX): “I feel like ACF Regionals 2021 is a confusing subtitle for a set that’s not ACF Regionals 2021.”

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Packet 12 Tossups

1. **A poem by this author states “they're taking him to prison for the colour of his hair” and asks “Oh who is that young sinner with the handcuffs on his wrists.” This poet wrote a “Fragment” parodying Aeschylean** [“ess-KEH-lee-en”] **tragedy. In Tom Stoppard’s play *The Invention of Love*, this poet recalls his unrequited love for an Oxford classmate, Moses Jackson. One poem by this man ends with the tale of “a (*) king reigned in the East,” Mithridates. The speaker of another of this man’s poems is advised to “Give crowns and pounds and guineas / But not your heart away.” For 10 points, name this poet of “Terence, this is stupid stuff” and “When I was one-and-twenty,” poems in *A Shropshire Lad*.**

ANSWER: A. E. **Housman** [or Alfred Edward **Housman**] (MGS)

2. **The Construction PDA allows users to build three different machines that deal damage, heal, and perform this other action. 6 different songs, such as the “Bolero of Fire,” result in this action when performed on an ocarina. The Saffron City Gym in *Pokémon’s* Kanto region contains special (*) tiles that perform this action when stepped on. In *League of Legends*, the Summoner Spell that performs this action can only be used on allied units or turrets and has a 4 second channel time. In *Pokémon*, using Dig or an Escape Rope item performs this action. Stepping into a pipe in *Super Mario Bros* results in, for 10 points, what action that instantly takes a player from one place to another?**

ANSWER: **teleportation** [accept word forms; accept **blinking** or **warping**; accept descriptions of **leaving a dungeon** or **leaving a cave** after “Dig” is read; prompt on answers like **transportation**] (MGS)

3. **This author began one work by listing “Debts and Lessons,” such as his tutor’s advice to “choose the Greek lifestyle – the camp-bed and the cloak.” This thinker exhorted readers to not assent to subjective value judgements with the slogan, “erase your impressions!” This thinker suggested that “you don’t love yourself enough” if you have trouble getting out of bed in the morning. This philosopher drew on (*) Epictetus’s *Discourses* in a collection written while on campaign in Sirmium that was never intended for publication. For 10 points, the *Meditations* were written by what Roman emperor and Stoic philosopher?**

ANSWER: Marcus **Aurelius** [accept Caesar Marcus **Aurelius** Antoninus Augustus; prompt on **Marcus**] (MGS)

4. **After a lunch with his rival Irving Langmuir, this scientist was found dead while working with hydrogen cyanide in what may have been a suicide. This scientist coined the terms “fugacity” and “photon” and was the first to isolate a pure sample of heavy water. This chemist prefigured the octet rule with his theory of atoms as cubes with eight vertices. A lone pair forms a dative bond in a type of (*) adduct named for this man. Boron trifluoride is a canonical example of his namesake class of acids, which are electron pair acceptors. For 10 points, name this chemist whose electron dot diagrams help to visualize covalent bonding between atoms.**

ANSWER: Gilbert Newton **Lewis** [accept **Lewis** adducts or **Lewis** acids or **Lewis** dot diagrams] (MP)

5. **The Treaty of the Three Black Eagles was a pact to remove the House of Wettin from this country's throne. Mikhail Suvorov suppressed an uprising in this country led by the Bar Confederation. This country's Constitution of May 3 reformed its long-standing tradition of "Golden Liberty." The Targowica** [^["tar-guh-VEET-sa"]] **Confederation solicited the foreign overthrow of this country's Great (*) Sejm** [^["same"]], which eliminated the *liberum veto*. After the death of this country's final king, Stanisław [^["sta-NEES-waf"]] II, his lover Catherine the Great seized much of its territory. For 10 points, a set of three agreements in 1772, 1793, and 1795 led to the partitioning of what eastern European country?

ANSWER: **Poland** [or Commonwealth of **Poland**; or Crown of the Kingdom of **Poland**; or **Polish**–Lithuanian Commonwealth] (LL)

6. **This opera's antagonist claims that its title character makes him forget God, in stark contrast to a chorus singing a Te Deum. That villain commands for another character in this opera to be treated like Count Palmieri. A B minor clarinet solo introduces an aria in which a character from this opera reminisces that "the stars were gleaming"; that aria is "E (*) lucevan** [^["eh lu-CHE-van"]] **le stelle."** That character from this opera aids the escaped political prisoner Angelotti. This opera's title character claims she "never did harm to a living soul" in "Vissi d'arte." After Scarpia's treachery, the title singer of, for 10 points, what Puccini opera throws herself off the Castel Sant'Angelo?

ANSWER: **Tosca** (MG)

7. *Description acceptable.* **The Malahat operated as a floating warehouse for this industry, delivering more of its product than any other ship. William McCoy, captain of the Tomoka, was a prominent participant in this industry. Blaise Diesbourg, a leader of this industry in Windsor, Ontario, used the pseudonym "King Canada." The Coast Guard built Six-Bitters to (*) intercept ships in this industry that arrayed themselves twelve miles off the coast of New Jersey. Al Capone dominated this industry in Chicago. When this industry operated over water, it was often called rum-running. For 10 points, name this illegal transport industry that sprang up in response to Prohibition.**

ANSWER: **bootlegging** [accept **rum-running** before mention; accept any answer indicating **smuggling** of **alcohol**; prompt on **alcohol** or **liquor** industry; prompt on **smuggling** by asking "of what?"] (JS)

8. **The NIST standard for this SI unit is a chip holding an array of over 20,000 Josephson junctions. Since this unit equals one weber per second, it is used to measure a quantity equated to the negative time derivative of magnetic flux in Faraday's law of induction. Particle energies are often reported in a unit equal to the electron (*) charge times this unit. This unit measures electromotive force and is equal to one joule divided by one coulomb. It also equals one ampere times one ohm, so it measures a quantity equated to current times resistance in Ohm's law. For 10 points, give this SI unit of potential difference, named for the Italian physicist who invented the battery.**

ANSWER: **volts** [accept **voltage**; prompt on **V**; prompt on Alessandro **Volta**] (SE)

9. **Heinrich Biber included a notable passacaglia for solo violin in his Rosary pieces of this genre. Corelli's first four opuses showcase these works "da camera" and "da chiesa"; those compositions are trio variants of these pieces. Another of these pieces with a lyrical A-flat major Adagio cantabile begins with a Grave** [^["grav-ay"]] **C minor chord. Many of these pieces for piano were also written by Muzio (*) Clementi. Although only a few were in these pieces' Classical "Allegro" form with an exposition, development, and recapitulation, Domenico Scarlatti wrote 555 of these pieces. For 10 points, name this musical genre, examples of which include Beethoven's Pathétique and Moonlight.**

ANSWER: **sonata** [accept piano **sonata**] (DM)

10. **One poet from this country compared his verse to a “wounded fawn / seeking refuge in the mountain,” and called his verses “light green” but also “flaming red.” One author from here wrote about the slaves Macandal and Ti Noel and their roles in the Haitian Revolution in a work that introduced the “marvelous real,” (*) *The Kingdom of This World*. A poet from this country cultivated a “white rose” for a “sincere friend” and a “cruel one” alike. A collection by a poet from this country was adapted into a song opening “I am a sincere man”; that collection is *Versos Sencillos*. “Guantanamera” is a patriotic song from, for 10 points, what Caribbean home country of the poet José Martí?**

ANSWER: **Cuba** [or Republic of **Cuba**; or República de **Cuba**] (MGS)

11. **This body of water’s Lisan Peninsula separates its two halves. This meromictic body of water had its only turnover event in 1978. Bitumen bubbles into floating blocks of asphalt on this body of water. The Qumran Caves archaeological site lies in the desert west of this body of water. A pipeline currently under construction will carry water from the Gulf of (*) Aqaba to this fast-receding body of water. An old parable teaches charity by noting that while the Sea of Galilee allows the Jordan River to flow back out of it, this “sea” does not. For 10 points, name this very salty body of water between Israel and Jordan with the lowest land elevation in the world.**

ANSWER: **Dead Sea** (DR)

12. **One of this group’s central texts is divided into four “weeks” of meditative retreat. Members of this group attempt to understand interior “motions of the soul” in its founder’s namesake “Discernment,” part of a technique called the Daily Examen. This organization argued that ancestor worship was a purely social custom in the Chinese Rites Controversy, which involved its member and (*) missionary Matteo Ricci. This group’s founder coined its motto, “Ad Majorem Dei Gloriam,” and wrote the *Spiritual Exercises*. Francis is the first pope to be a member of this order. For 10 points, name this Catholic order founded by Saint Ignatius of Loyola.**

ANSWER: **Jesuits** [or the **Society of Jesus**; prompt on the **Catholic** church under “order” is read] (DS)

13. **This figure inquires about the genealogy of Óttar in the Lay of Hyndla. A torc belonging to this figure is retrieved at the Singasteinn by a god who takes the form of a seal. This deity owns the “great and fair” hall Sessrúmnir, and rides the boar Hildisvini. During Ódr’s long travels, this deity cries red-gold tears. This figure introduces (*) *seidr* to the Aesir. Loki borrows this figure’s feathered cloak to help Thor impersonate her to retrieve Mjólnir from Thrym, who wants to marry her. Half of the warriors slain in battle end up in Fólkvangr, the hall of this owner of Brisingamen, who rides a chariot pulled by cats. For 10 points, name this Norse goddess of love, beauty, and fertility.**

ANSWER: **Freyja** [or **Freyja**; do **NOT** accept or prompt on “Frigg,” “Frigga,” “Frey,” or “Freyr”] (HK)

14. **The QSSS hypothesis is an explanation of the shape of these objects introduced as part of C. C. Lin and Frank Shu’s density wave theory. Vera Rubin argued for the existence of dark matter from the fact that the rotation curves of these objects are flat instead of dropping off at large distances. The rotation speed and intrinsic luminosity of these objects roughly obey the (*) Tully–Fisher relation. In at least half of these objects, the central bulge extends into a “bar” shape. These objects are grouped into classes beginning with “S” on the Hubble tuning fork diagram. For 10 points, the Milky Way is an example of what type of galaxy that features pinwheeling arms?**

ANSWER: **spiral galaxies** [or **spiral galaxy**; accept **spiral** after “galaxy”; prompt on **galaxy** or **galaxies**] (DR)

15. **Inspired by Van Gogh, this artist created a self-portrait as a jug missing an ear. This artist painted two brown-skinned women, one in native garb with a white flower in her hair and another with a pink European-style dress, in *When Will You Marry?* In another painting, he symbolized “the Beyond” with a (*) blue idol. In an earlier painting by this artist, a diagonal tree trunk against a red background separates a cow and white-bonneted Breton women from Jacob wrestling an angel. For 10 points, identify this French Post-Impressionist painter of *Where Do We Come From? What Are We? Where Are We Going?*, who created many works in Tahiti.**
ANSWER: Paul Gauguin [or Eugène Henri Paul Gauguin] (SL)

16. **The master musician Tansen left Rewa State to join this man’s court and marry his daughter. This man’s grandson was raised by his favored wife, Ruqaiya Sultan Begum, who also restored familial relations after his son assassinated one his nine jewels, Abu’l-Fazl [“AH-bool-FUZ-el”]. After conquering Gujarat, this ruler built the Gateway of Victory in his (*) empire’s new capital, Fatehpur Sikri. The man’s 1562 marriage to Jodha Bai ended a conflict with the Rajputs. This founder of the syncretic *Din-i-Ilahi* religion won the Second Battle of Panipat and abolished the *jizya* tax. For 10 points, name this third Mughal emperor, a son of Humayun sometimes known as “the Great.”**
ANSWER: Akbar the Great [or Akbar I; or Jalaluddin Muhammad the Great; or Abu'l-Fath Jalal-ud-din Muhammad Akbar] (HK)

17. **A crowd of staring sailors are held fixed by the “centrifugal force” of this thing. This thing is described on a shared tombstone as “gules” and said to be found “on a field, sable.” A girl tells her mother the sunshine fears this thing, which is called the “mark” of the Black Man. This object is found alongside documents left by Jonathan Pue in a (*) New England custom house. A minister on a scaffold sees a meteor in the shape of this item, and he later reveals a mark resembling it on his chest; that minister, Arthur Dimmesdale, is the true father of Pearl. Hester Prynne is forced to wear, for 10 points, what item representing adultery in a novel by Nathaniel Hawthorne?**
ANSWER: the scarlet letter [or the letter “A”] (DS)

18. **This molecule is stored in an inactive form as a symmetric hexamer coordinated to a zinc atom. Dorothy Crowfoot Hodgkin used crystallography to elucidate the structure of this peptide and paved the way for its mass production as a drug, like Eli Lilly’s Humalog version. This hormone signals for the insertion of (*) GLUT4 transporters into the cell membranes of myocytes and adipocytes as well as for glycogenesis in the liver. Glucagon opposes the effects of this hormone, which is produced by beta cells in the islets of Langerhans. For 10 points, insufficient production or activity of what pancreatic peptide hormone causes diabetes mellitus?**
ANSWER: insulin (HK)

19. **A syphilitic doctor in this play compares his physical illness to that of another “morally diseased” character. By its end, this play’s protagonist “no longer [believes] in wonderful things happening.” The husband of this play’s protagonist calls her “my little (*) squirrel” and chastises her for being a “spendthrift.” The protagonist of this play tells her husband that they “have never exchanged a word on any serious subject” during a “settling of accounts.” Previously in this play, Nils Krogstad had tried unsuccessfully to blackmail that woman over a fraudulent loan. For 10 points, name this Henrik Ibsen play in which Torvald Helmer’s wife Nora leaves him and their title residence.**
ANSWER: *A Doll’s House* [or *Et dukkehjem*] (HK)

20. Before going to university, this man worked for his godfather Tim Rathbone and as a “ship jumper” in Hong Kong. After succeeding Michael Howard as party leader, this man oversaw a gain of 96 seats in an election rocked by the parliamentary expenses scandal. This politician announced support for one policy in the Bloomberg speech. This man attained his highest position in (*) 2010 by forming a coalition with Nick Clegg. This politician’s victory over Ed Miliband obligated him to call a referendum that led to his resignation when it returned a result of 52% for “Leave.” For 10 points, name this former prime minister of the United Kingdom who called the Brexit referendum.

ANSWER: David Cameron [or David William Donald Cameron] (JS)

Tiebreaker

Excess atoms of this element are chelated by citrate in an EM stain that improves upon ones based on this element’s hydroxide. Zircon rejects this element from its crystal lattice and is therefore used in radiometric dating that relies on two parallel decay pathways leading to this element. This element’s (*) tetraethyl compound was used as an anti-knock agent. The thorium and uranium decay series both end in this element’s doubly-magic 208-isotope. This element’s sulfide, galena, is the primary mineral ore of this element once commonly found in paints and pipes. For 10 points, name this toxic heavy metal, useful for radiation shielding, with symbol Pb.

ANSWER: lead [or Pb before mention] (HK)

Packet 12 Bonuses

1. The Sakhalin and Kuril Island variants of this language have gone extinct. For 10 points each:

[10] Name this endangered language isolate spoken by a namesake ethnic group, now mostly spoken in Hokkaido. Some linguists have tried to link it to Native American languages, but to date no genealogy has been proven.

ANSWER: **Ainu**

[10] The Macro-Altaic hypothesis links Ainu to Japonic languages and this other language isolate, the most commonly spoken isolate today. It's related to a language spoken in Jeju which used to be considered a dialect of it.

ANSWER: **Korean** [or *hanguk-eo*; or *hanguk-mal*; or *uri-mal*; or *guk-eo*]

[10] The original Altaic hypothesis didn't include Koreanic or Japonic, only linking Tungusic and Turkic languages to the language family named for this *ethnic group*. They name a country sandwiched between Russia and China.

ANSWER: **Mongols** [accept **Mongolic** languages; do **NOT** accept or prompt on "Mongolians"] (HK)

2. Answer the following about rabbits in children's literature, for 10 points each.

[10] Beatrix Potter wrote about this rabbit who runs into Mr. MacGregor's garden and loses his clothes while trying to escape. On the other hand, his sisters, Flopsy, Mopsy, and Cottontail, obediently eat blackberries from the lane.

ANSWER: **Peter** Rabbit

[10] This book by Richard Adams details the adventures of rabbits going from Sandleford Warren to found a new warren. In it, Hazel, Fiver, and Bigwig lead a successful effort to defeat General Woundwort's siege.

ANSWER: **Watership Down**

[10] This author wrote about a toy china rabbit in *The Miraculous Journey of Edward Tulane*. This author of *Because of Winn-Dixie* also wrote about a chivalric mouse who uses a needle for a sword in *The Tale of Despereaux*.

ANSWER: Kate (Elizabeth) **DiCamillo** (DM)

3. These objects, one of which is believed to have been converted from a throne, were carved from single blocks of basalt and have been unearthed from San Lorenzo and La Venta. For 10 points each:

[10] Name these objects, which the Olmec are theorized to have created to memorialize individual rulers. Though the mo'ai of Easter Island depict entire bodies, they are renowned for their elongated versions of these objects.

ANSWER: **heads** [prompt on faces]

[10] The Olmecs used this material to create a ceremonial Kunz Axe featuring a were-jaguar motif. This material also features in Olmec face masks.

ANSWER: **jade**

[10] Olmec sites like San Lorenzo are in Veracruz, where the Remojadas culture created figurines with this feature. The *Kroisos Kouros* depicts an "archaic" form of this feature.

ANSWER: **smile** [or **smiling**; accept **sonrientes**; accept archaic **smile**] (AY)

4. Brent Berlin and Paul Kay proposed a universal order for the evolution of words for this phenomenon. For 10 points each:

[10] Name these phenomena whose perception is governed by opponent-process theory. Ishihara plates can detect a namesake condition where people are "blind" to some of these constructs.

ANSWER: **color**

[10] Color is one modality frequently involved in this psychological phenomenon. In this condition, people sense one sensory modality in another, explaining why some people can "see" sounds as certain colors.

ANSWER: **synesthesia** [accept **chromesthesia**]

[10] Sound-color synesthesias are associated with greater connectivity between auditory processing centers and centers like V1 and V4 located in this most posterior lobe of the brain.

ANSWER: **occipital** lobe (HK)

5. This process begins above the elastic limit, and on a stress–strain curve, it is seen where the curve begins to bend. For 10 points each:

[10] Name this process in which a solid changes shape permanently. Unlike an elastic deformation, this type of change is not undone when the applied force is removed.

ANSWER: **plastic** deformation [or **plastic** flow; or **plasticity**]

[10] At lower levels of deformation, stress and strain have a largely linear relationship. This quantity, the constant ratio of stress to strain, is named for its English discoverer.

ANSWER: **Young’s modulus** [prompt on elastic **modulus**]

[10] The square root of Young’s modulus appears in the formula for this quantity in solids, where it is generally higher than in air. Objects that surpass this quantity are said to have passed Mach 1.

ANSWER: **speed of sound** [prompt on **c**] (DM)

6. Answer the following about the Rurikid dynasty, for 10 points each.

[10] The Rurikid dynasty came to an end when Ivan IV was succeeded by Boris Godunov, whose death began this period in Russian history. It was ended by Mikhail Romanov’s accession.

ANSWER: **Time of Troubles**

[10] The Rurikid dynasty began with one of these people from Sweden who had power in Novgorod. These Scandinavian people also pillaged many towns in Western Europe in longships.

ANSWER: **Vikings** [accept **Varangians** or **Rus**]

[10] This Rurikid son of Vladimir the Great began work on a law code for Kievan Rus’ that later became the basis of Russian law. Under his rule, Kievan Rus’ reached its maximal extent.

ANSWER: **Yaroslav the Wise** [or **Yaroslav I**; prompt on **Yaroslav**] (DM)

7. Decolonization was a long, hard-fought battle, whether through fierce negotiations or bloody wars. Answer the following about an especially brutal one of the wars, for 10 points each.

[10] Name this North African colony that successfully fought a 1954-1962 war with France.

ANSWER: French **Algeria**

[10] This political party was the main organizer of Algerian resistance, starting the war during Toussaint Rouge [“tu-sahng rooj”] in 1954. It established a one-party state after independence and has been freely elected into power since 2002.

ANSWER: **FLN** [or **National Liberation Front**; or **Front de Libération Nationale**]

[10] These people of French origin left Algeria following the end of the struggle for independence, fearing retaliation from the FLN. Albert Camus was one of these people.

ANSWER: **Pieds-Noirs** [or **Pied-Noir**] (ZA)

8. These frameworks are characterized by a *vadi*, the most prominent note, and the *samvadi*, the second-most prominent. For 10 points each:

[10] Name these melodic frameworks similar to Western modes. Hindustani and Carnatic classical music both use these frameworks, each one of which has associated characteristics like season and time of day.

ANSWER: **ragas**

[10] Another defining characteristic of each *raga* is the *tala*, or rhythm. *Tala* more literally refers to this physical action of the hands used to keep the time, also known as the *palmas* when utilized in *flamenco*.

ANSWER: **clapping** [or **handclapping**]

[10] Instead of *ragas* containing fixed songs, singers are expected to be able to work within the parameters of each *raga* to perform this musical act. Jazz notably also requires extensive use of this skill, including in scat singing.

ANSWER: musical **improvisation** [accept word forms] (HK)

9. The unedited version of this bonus made the surprising claim that any movie with a time loop is a rip-off of *Groundhog Day*. Answer the following about music featured in such movies, for 10 points each.

[10] In *Groundhog Day* itself, this object plays the Sonny and Cher song “I Got You Babe” every day, before a voice implores “campers” to “don't forget your booties ‘cause it's cold out there.”

ANSWER: Phil Connors’ **clock radio** [accept **alarm clock**; prompt on **radio**]

[10] The 2020 film *Palm Springs* ends with the song “When the Morning Comes” from this duo’s album *Abandoned Luncheonette*. This duo’s number-one hits include “Rich Girl” and “Maneater.”

ANSWER: **Hall & Oates** [accept **Daryl Hall & John Oates** or **Daryl Hall John Oates**]

[10] The John Newman song “Love Me Again” plays over the closing credits of the 2014 film *Edge of Tomorrow*, which stars this actor and Scientologist as a soldier who repeatedly fights alien invaders.

ANSWER: Tom **Cruise** [or Thomas **Cruise**; or Thomas Cruise **Mapother IV**] (ST)

10. *Orlah* refers to a prohibition on consuming the product of these plants until the fifth year after planting. For 10 points each:

[10] Name these plants. Tu BiShvat, often called the Jewish Arbor Day, is considered the New Year of this general class of plants.

ANSWER: **trees**

[10] Along with other symbolic foods, the *maror*, or bitter herbs, are placed on this holiday dish to represent the bitterness of slavery. Some Reform Jews have recently begun putting an orange on this dish as well.

ANSWER: Passover **sedder plate** [or the Pesach **sedder plate**; or **k’arah**; prompt on **plate**]

[10] During the harvest festival of Sukkot, Jews wave the “four species,” which are given these *two* Hebrew names. One refers to a bundle of myrtle, willow, and date palm fronds, while the other is a yellow citron.

ANSWER: **lulav** AND **etrog** [accept in either order] (DS)

11. This technique is fruitful in computing factorials and Fibonacci numbers, as well as in solving the Tower of Hanoi problem. For 10 points each:

[10] Name this computational technique, in which a function calls a copy of itself.

ANSWER: **recursion** [prompt on **divide-and-conquer**]

[10] Recursion is implemented by putting successive function calls on this data structure managed by the system. While the heap grows upward in a program’s memory model, this “last in, first out” structure grows downward.

ANSWER: call **stack** [accept execution **stack** or program **stack** or control **stack**]

[10] The number of recursive function calls can be reduced via this technique, which stores previously obtained results so they can be looked up instead of recomputed.

ANSWER: **memoization** [do **NOT** accept or prompt on “memorization”] (MG)

12. A broken rose stem, an empty glass of water, and the narrator’s inability to see himself in a mirror all indicate this creature’s presence. For 10 points each:

[10] Name this invisible creature who preys upon the narrator of a story after sneaking off a Brazilian ship. In an attempt to kill this vampiric creature, the narrator burns down his home and kills all the servants in the process.

ANSWER: the **Horla** [accept “Le **Horla**”]

[10] This author of “The Horla” also wrote a story in which the Jewish prostitute Rachel kills an effeminate Prussian officer nicknamed “Mademoiselle Fifi.”

ANSWER: Guy de **Maupassant** [or Henri René Albert Guy de **Maupassant**]

[10] In this Maupassant story, Mathilde Loisel spends ten years in poverty paying for a replacement to the title piece of jewelry, unaware the original was a cheap paste imitation.

ANSWER: “The **Necklace**” [or “The **Diamond Necklace**”; or “La **Parure**”] (DS)

13. In the 48th entry of one series, this artist appears with a suitcase on the ground at her side, beside the bend of an empty road as the sky darkens. For 10 points each:

[10] Name this artist, who created numerous *Untitled Film Stills* evoking generic female characters from movies. This artist also arranged mannequin body parts in her *Sex Pictures*.

ANSWER: Cindy **Sherman** [or Cynthia Morris **Sherman**]

[10] Sherman's *Untitled Film Stills* have this quality, similar to old Hollywood films that can now be colorized.

ANSWER: **black** and **white** [accept **grayscale** or **monochromatic**]

[10] Laura Mulvey analyzed how Sherman deconstructs this concept by being both photographer and model.

Mulvey also coined the term for a male version of this concept that objectifies women for the viewer's pleasure.

ANSWER: male **gaze** (AY)

14. The Rex organization is credited with introducing green, gold, and purple as the local colors of this holiday. For 10 points each:

[10] Name this holiday famously celebrated in New Orleans. This holiday is celebrated on Fat Tuesday as part of Carnival.

ANSWER: **Mardi Gras**

[10] One traditional Mardi Gras food in New Orleans is this dessert with a porcelain baby baked inside. The person who receives the piece of this dessert with the baby is responsible for buying next year's cake.

ANSWER: **king cake**

[10] Mardi Gras in New Orleans is also known for lavish parades organized by these groups. Famous examples of these groups include Rex, the Zulu Social Aid & Pleasure Club, and the Knights of Momus.

ANSWER: **krewe**s (JS)

15. William Wimsatt and Monroe Beardsley's 1946 essay "The Intentional Fallacy" strongly influenced this movement. For 10 points each:

[10] Name this formalist American school of literary thought that emphasized the importance of "close reading" texts to derive "objective" interpretations of them.

ANSWER: **New Criticism** [accept **New Critics**]

[10] Though not a New Critic, Roland Barthes also argued against privileging this figure's intent. In an eponymous essay, he posited that the birth of the reader requires "The Death of [this figure]," the person who wrote the text.

ANSWER: the **author** [accept "The Death of the **Author**" or "La mort de l'**auteur**"]

[10] To criticize "author psychology," "The Intentional Fallacy" analyzes the "trepidation of the spheres" of lovers like "twin compasses" from a poem by this author. This man described "one blood made of two" in another poem.

ANSWER: John **Donne** (The poems are "A Valediction: Forbidding Mourning" and "The Flea.") (HK)

16. This kingdom lost the decisive Battles of Cynoscephalae and Pydna in 197 and 169 BCE to the Romans. For 10 points each:

[10] Identify this ancient kingdom whose soldiers were known for carrying long *sarissa* pikes. A previous leader of this kingdom, Alexander the Great, defeated Darius III at the Battle of Gaugamela.

ANSWER: **Macedonia**

[10] At the Pydna, Perseus of Macedon fled the battlefield first with his elite unit of this type, named the "Companions." Previously, Alexander had used the Companions to smash enemy forces "fixed" by phalanxes.

ANSWER: **cavalry** [accept shock **cavalry** or heavy **cavalry**]

[10] Between the Battles of Cynoscephalae and Pydna against Macedon, the Romans defeated this other eastern empire at Magnesia in 189 BCE. The ensuing Treaty of Apamea ended its influence in Asia Minor.

ANSWER: **Seleucid** Empire (VS)

17. Applying this theorem to a blackbody yields the Rayleigh–Jeans law, which fails catastrophically in the ultraviolet limit. For 10 points each:

[10] Name this theorem, which states that each of an atom’s degrees of freedom holds the same amount of energy. Its failure to model blackbodies and specific heats motivated the formulation of quantum mechanics.

ANSWER: **equipartition** theorem [or law of **equipartition**; or **equipartition** of energy]

[10] The equipartition theorem predicts that for every degree of freedom, an atom has a kinetic energy equal to one half times the absolute temperature times this constant named after an Austrian physicist.

ANSWER: **Boltzmann**’s constant [or **kB**; prompt on **k**]

[10] The equipartition theorem predicts that the energy of monatomic examples of these systems have an internal energy of “three-halves $kB T$.” The namesake law describing these states of matter is “ PV equals nRT .”

ANSWER: ideal **gases** [accept ideal **gas** law] (HK)

18. Answer the following about gene knockout procedures, for 10 points each.

[10] The traditional way to knock out genes involves taking advantage of this process, during which the formation of a Holliday junction facilitates swapping out regions of DNA surrounded by regions with identical sequences.

ANSWER: **homologous recombination** [or **HR**; or **homology-directed recombination**; or **HDR**; prompt on **crossover** or **crossing over**]

[10] The speed of homologous recombination also determines how quickly *this* trendy system, which is derived from bacterial anti-phage mechanisms, can knock out a desired gene.

ANSWER: **CRISPR/Cas-9** [or **clustered regularly interspaced short palindromic repeats/Cas-9**]

[10] Depending on the number of alleles affected, gene knockouts can be either homozygous or of this other type, in which only one allele is affected.

ANSWER: **heterozygous** (HK)

19. Name some members of FDR’s cabinet, for 10 points each.

[10] This man briefly headed FDR’s cabinet as vice president before FDR’s death in 1945. A headline in the Chicago Tribune incorrectly declared that Thomas Dewey had defeated this man in the 1948 Presidential election.

ANSWER: Harry S. **Truman**

[10] A man with this last name served as FDR’s Secretary of the Navy in 1940. His father of the same surname led a company that lost a contract for the Chicago World’s Fair to George Westinghouse.

ANSWER: **Edison** [accept Charles **Edison** or Thomas **Edison**]

[10] This Secretary of War under FDR had held the same office in Taft’s cabinet. In this man’s namesake doctrine, adopted upon Japan’s taking of Manchuria, the U.S. did not recognize territorial gains resulting from hostile action.

ANSWER: Henry Lewis **Stimson** (DM)

20. In a poem, Aga sends envoys to force the inhabitants of this city to build wells for him. For 10 points each:

[10] Name this city whose “ramparts gleam like copper in the sun” in another poem. A ruler of this city has two dreams in which he lays down a meteorite and an axe at his mother’s feet.

ANSWER: **Uruk** [or **Unug**; or **Erech**; or **Kulaba**; or **Unug Kulaba**]

[10] The goddess Aruru molds the wild man Enkidu from clay in order to end the abuses of this king of Uruk, the namesake of a Sumerian epic.

ANSWER: **Gilgamesh** [accept the *Epic of Gilgamesh*]

[10] After swearing a bond of friendship, Gilgamesh and Enkidu embark on an expedition to slay the monster Humbaba, who guards one of these locations. It takes six days to reach that one of these locations from Uruk’s walls.

ANSWER: **forest** [or **Cedar Forest**] (DS)

Tiebreaker

Answer the following about notable poetic meters in the English language, for 10 points each.

[10] Shakespeare's sonnets are written in this meter consisting of five short-long feet per line, such as "Shall I compare thee to a summer's day."

ANSWER: **iambic pentameter** [prompt on partial answer]

[10] Elias Lönnrot's compilation of the *Kalevala* inspired Longfellow's *Song of Hiawatha* in this poetic meter, as in the last two lines of Wordsworth's introduction: "Stay and read this rude inscription, / Read this Song of Hiawatha!"

ANSWER: **trochaic tetrameter** [prompt on partial answer]

[10] This term refers to poetry lacking any consistent rhyme or meter. Walt Whitman pioneered American poetry described by this term.

ANSWER: **free verse** (DM)