

## Cane Ridge Revival

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Packet 1

TOSSUPS

1. One character in this novel brings up the historical examples of Henry VIII, Alexander VI, and Mr. and Mrs. Manning to prove that fat people aren't necessarily amiable. During a performance of the opera *Lucrezia Borgia* in this novel, the blood-red brand on one character's arm reveals that he belongs to an organization called The Brotherhood. One character in this novel catches a fever after lying out on a roof in the rain in order to (\*) eavesdrop on a plot co-hatched by a man who dies in a vestry fire he sets to destroy a church register that he forged in order to hide his illegitimacy. Those two characters are Sir Percival Glyde and Marian Halcombe. In this novel, Count Fosco masterminds a scheme to seize Laura Fairlie's estate by using her resemblance to the asylum inmate, Anne Catherick, whose characteristic garb titles the book. For 10 points, name this "sensation novel" by Wilkie Collins.

ANSWER: *The Woman in White*

2. This process does not occur in the core region in its shell-progressive form. It proceeds most effectively via attachment to steps and kinks. Generally only "unshielded" structures cause this process because they can engage in "dangling" interactions. The effects of a diffusion-limited form of this process are proportional to the square root of one minus alpha. The uniformity of this process is measured on curves of normalized activity versus concentration, whose negative slope gives a measure of susceptibility. When the (\*) Thiele modulus is large, this process causes a nonlinear change in the effectiveness factor. A form of this process employing lead acetate and quinoline allows palladium to selectively reduce alkynes to alkenes. For 10 points, name this process of chemisorption that blocks the reactive sites available to such catalysts as Lindlar's.

ANSWER: poisoning a catalyst [prompt on catalyst "inhibition" or "deactivation" or other descriptive answers; prompt on "adsorption" or "chemisorption" or related answers before "chemisorption"; prompt on "diffusion" before mentioned; prompt on "deposition"; prompt on "catalysis" I guess]

3. Although these events aren't "gold rushes," a favorable outcome in one of them did not increase investment in children's human capital according to Bleakley and Ferrie's study of the final one of a series of these conducted in Georgia up until 1832. *Champion v. Ames* upheld the federal government's power to outlaw these events, a decision that gave rise to tortured reasoning in (\*) *Hammer v. Dagenhart*. Charles Howard was the president of a notoriously corrupt organization that ran these events and operated as a political machine in Louisiana during and after Reconstruction. The aforementioned series of these events in Georgia was legislated there following the Yazoo Land Fraud. These events were conducted to determine draft order by birth date during the Vietnam War. For 10 points, what are these events, the largest one of which to date was a \$656 million MegaMillions jackpot?

ANSWER: lottery [accept anything more specific: land lottery and draft lottery, for example]

4. In one tradition, the inhabitants of this place each possessed a plant that provided one piece of fruit a day until one man's plant gave him two fruits one day and none the next, resulting in the first theft. That event occurred after the inhabitants of this place ate a creamy substance off the ground until they become mortal. This place is surrounded by seven rings of golden mountains and seven lakes, the last of which contains four worlds like islands. In another tradition, a wind god spends a year breaking off part of this place, resulting in the formation of an island; that island formed from this place becomes the site of a city later ruled by a (\*) ten-headed demon. This place is encircled daily by the sun god Surya. The gods tied the naga Vasuki around this place during the Churning of the Ocean of Milk. For 10 points, name this axis mundi represented by Angkor Wat, a five-peaked mountain that holds the palace of Indra.

ANSWER: Mount Meru [accept Sumeru; accept Rirap Lhunpo; accept Czambu Ling or Dzambu Ling]

5. This scholar proposed an alternative which emphasizes “offensive intent” to the prevailing neo-Realist concept of Balance of Power in order to explain why the Triple Entente was collectively more powerful than the enemy it was founded to counter and why NATO countries did not turn against the United States during the Cold War; that is this man’s “Balance of Threat” theory. In the article “Rigor or Rigor Mortis?” this scholar questioned whether notable game theoretic works in IR were either original or empirically valid. This man and his alphabetically (\*) prior co-author analyzed the electoral defeat of Senator Charles Percy, a letter attacking Howard Dean for using the term “even-handed,” and an incident in which Colin Powell reversed his position on halting settlement construction as cases in which the title entity wielded its power against US interests. For 10 points, name this co-author of *The Israel Lobby and U.S. Foreign Policy* with John Mearsheimer.  
ANSWER: Stephen Walt

6. In *Life: A User’s Manual*, Cinoc works for a company that makes these objects. In *David Copperfield*, Doctor Strong spends his spare time trying to create a new one of these objects. John Kersey the Younger and Nathan Bailey were best known for producing these objects. A man who claimed to be serving as the patron for the creation of one of these objects was attacked in the *Letter to Chesterfield*. In the opening chapter of *Vanity Fair*, Becky Sharp flings one of these objects out of a (\*) carriage window. A work of this type describes the Scythian practice of plucking out a cynic’s eyes to improve his vision. Another of these works claims that oats are given to horses in England, but support the people in Scotland. A humorous work of this type named for the Devil was produced by Ambrose Bierce. For 10 points, Samuel Johnson spent nine years writing what sort of work, typically produced by lexicographers?  
ANSWER: dictionary [prompt on “books”]

7. A process named for this man is combined with atomic force microscopy in TERS. Three lasers are used to create coherent transitions corresponding to modes of this man’s namesake process in CARS. This physicist names a technique that uses Notch filters to overcome the challenge of ignoring the results of the laser-caused Rayleigh scattering, as the desired (\*) frequency change in the incident light happens very rarely. A process named for this man is divided into two classes based on whether the resulting photons have gained or lost energy; those classes are Stokes and anti-Stokes interactions. During a fifteen-day trip home from London aboard the *SS Narkunda*, the color of the Mediterranean inspired, for 10 points, what uncle of Chandrasekhar, an Indian physicist with a namesake type of scattering?  
ANSWER: Chandrasekhara Venkata Raman

8. In one opera by this composer, a tenor asks his beloved to forget the world and join him in the forest in “*Ah! Viens, dans la forêt profonde*”. A solo alto saxophone plays the main melody of the “Barcarolle” from Act III of one ballet by this composer, which also features a “pizzicato” *divertissement* as its most famous movement. In this composer’s most famous operatic selection, which is in B major and 6/8 time, two (\*) sopranos sing extended melismas in parallel thirds. Orion kidnaps the title heroine of one ballet by him; Aminta loves that title nymph of Diana. Mallika helps the protagonist gather plants by the riverside in an opera by him, in which the priest Nilakantha forces his daughter to sing “*Où va la jeune Hindoue*” in order to lure the British soldier G rald to his death for trespassing on sacred Brahmin grounds. For 10 points, the “Bell Song” and the “Flower Duet” appear in what French composer’s opera *Lakm *?  
ANSWER: (Cl ment Philibert) L o Delibes

9. The *framea* was a type of spear commonly used by soldiers from this region, in which one hundred men were drawn from individual cantons to form armies. One ethnicity from this region worshipped a pair of twin gods in a grove at a site known as Alcis. According to one text, this region was the origin of the trade in *glaesum* and its people were descendants of the divine Tuisto. A leader from this region brought 15,000 men to aid the Sequani and their allies at the Battle of Magetobriga, helping defeat the (\*) Aedui. That man who lost at Vosges was Ariovistus, leader of the Suebi. Migrants from this region inflicted defeats on Rome at Noreia and Arausio during the Cimbrian War. This region titles an ethnographic text by Tacitus, and tribes from here invaded Rome during the Migration Period. For 10 points, name this region, in which Arminius betrayed Varrus in the Teutoburg Forest.

ANSWER: Germania [anti-prompt on “Suebia” or “Swabia” and “Lugia”]

10. A hadith in Sahih Muslim reports that this man resembles Urwah ibn Mas’ud. The sight of a bird feeding her young in a tree inspired a woman to conceive this man’s mother, and with Allah’s permission, this man breathed life into a bird he designed from clay. This man of reddish-white complex revealed the *injl* in addition to affirming the *tawrat* and *zabur*, and he will descend near Damascus in saffron garments with his hands placed on the wings of two angels. The last revelation to become (\*) *tahrif* was revealed by this man. In Surah an-Nisa, the disbelievers claim to have killed this man, though that is revealed to be an illusion. Along with the Madhi, this figure will pursue the Dajjal in preparation for the Day of Resurrection, which is why he is known as the *masih*. For 10 points, name this son of Yusuf and Maryam who, according to Islam, was not killed by crucifixion.

ANSWER: Isa [or Jesus; or Yehoshua; or Iesous; or any number of variants and foreign names]

11. Slavoj Žižek, in *The Ticklish Subject*, argues that there are always at least two forms of this figure, the second being an “anal” form who embodies obscene *jouissance*. One theorist’s conception of this figure as the “third term” emerges from the exclusion of this figure from the primary dyadic relationship in Melanie Klein’s object relations theory. The “ego-ideal” is an introjection of and identification with this figure. The “symbolic” version of this figure signifies the forces of law and prohibition in a concept by (\*) Jacques Lacan that puns on the similarity of the French words for “no” and for “name.” Religious guilt is said to come from and the totem meal is said to be symbolic of the devouring of the “primal” figure of this type in *Totem and Taboo*, whose surrogate then becomes the concept of God. For 10 points, name this figure whom boys wish to kill, according to the Oedipus complex.

ANSWER: the father [or the paternity / paternal figure; or the patriarch; accept equivalents like “dad”; prompt on “parent”]

12. This process was proposed to rectify holes in the original B<sup>2</sup>FH (“B-squared F H”) paper, which implies a high-metallicity universe. This process, which requires stable free neutrons, was shut off by a cooling expansion that kicked in prior to the start of the Triple-Alpha process, thanks to the lack of stable nucleons with mass 5 or 8. A low baryonic ratio measured in the Cosmic Microwave Background is consistent with this process as the cause of the residual (\*) Deuterium and Helium-4 found throughout the universe; the latter isotope is found at an almost constant cosmic density of 25% by mass thanks to this process, regardless of age. For 10 points, name this process by which the first elements other than hydrogen were formed within several minutes following the birth of the universe.

ANSWER: Big Bang Nucleosynthesis [prompt on partial answer; accept descriptions like “synthesis of light elements during the Big Bang” and reasonable equivalents; accept “Helium” or “Deuterium” in place of “light elements” before those things are mentioned and “birth of the universe” or equivalents for “Big Bang”]

13. This character observes that “the family is the cradle of the world’s misinformation” after listening to factoids about camels while he drives to the Mid-Village Mall. Because he is male, this character is accused of following the path of “homicidal rage” shortly after discussing Sunni Muslims with a carb-loading snake-handler. This character wonders if he or his wife will die first before observing a televised broadcast of her teaching a church class. He visit the most photographed (\*) barn in America with visiting pop culture lecturer Murray Siskind and takes lessons from Howard Dunlop in preparation for a conference at which he will need to know German. He later learns that he has been injured by Nyodene D from a member of SIMUVAC. For 10 points, name this husband of the Dylar-addicted Babette, a Hitler Studies professor who gets exposed to the Airborne Toxic Event in *White Noise*.

ANSWER: Jack A. K. Gladney [accept either]

14. The Gladzor Gospels show this scene with a fountain between the protagonists. Andrei Rublev’s version of this scene shows the right-hand figure enthroned under a red canopy and the left-hand figure with his front foot above the back foot in a striding-up position. A figure in blue shrinks back into her chair beneath a circle of doves in a version of this scene finished by Lippo Memmi. That version of this scene is sometimes named for the saints flanking it, Margaret and Ansanus, and is the masterwork of (\*) Simone Martini. A version of the scene whose left-hand panel shows Joseph building a mousetrap was painted by Robert Campin. These scenes often feature golden text emerging from an angel’s mouth and either a branch or vase of white lilies representing the main female figure. For 10 points, name this scene which is the subject of the *Merode Altarpiece*, the act of Gabriel informing the Virgin she will bear Christ.

ANSWER: Annunciation

15. One thinker described *this movement* as a *Verwindung* rather than an overcoming and as a convalescence after the replacement of metaphysics by hermeneutics; that is Gianni Vattimo’s concept of “weak thought.” Habermas argued that *this movement’s* critique of communicative reason is a performative contradiction, because it fails to overcome the “paradox of self-referentiality.” One thinker argued that *this* replaced the mode of “parody” grounded in societal norms with the collage-like mode of “pastiche” without reference to norms, and refers to *this* as “The (\*) Cultural Logic of Late Capitalism.” A different thinker claimed *its* salient feature is a skepticism towards the totalizing nature of teleological interpretations of events, which he called “metanarratives.” For 10 points, name this cultural state that titles Fredric Jameson’s magnum opus and whose “Condition” was described by Jean-François Lyotard.

ANSWER: postmodernism [be generous and accept things like postmodernity or the postmodern condition, etc.; also accept the end of modernity, but do NOT prompt on or accept anything that says just “modernity” or its word forms]

16. The contrasting personalities of three leaders during this period are illustrated in a series of short poems describing reactions to a cuckoo refusing to sing. One man from this period was noted for wearing a helmet with a crescent moon and was known as the “one-eyed dragon.” The use of teppo became common during this period, during which the rise of a man nicknamed “little monkey” to the rank of kampaku is considered an example of (\*) gekokujō. Early in this period, the Yamana and Hosokawa families intervened in a succession struggle, and it featured the rivalry of Uesugi Kenshin and Takeda Shingen. This period began and ended with clashes between “Eastern” and “Western” armies during the Ōnin War and the Battle of Sekigahara. For 10 points, name this period during which Japan was fragmented by feuding daimyo, which was brought to an end by Tokugawa Ieyasu.

ANSWER: Sengoku period [or Sengoku-jidai; accept Warring States period or similar translations; prompt on Muromachi or Ashikaga; accept Azuchi-Momoyama period until “Yamana” and anti-prompt thereafter]

17. This organism develops an abnormal webbed phenotype when artificially expressed Gremlin antagonizes its endogenous BMP4. Niswander et al. expressed fibroblast growth factors in this organism's distal mesenchyme to rescue mutants lacking the apical ectodermal ridge. Transplanting this organism's mesodermal cells or applying retinoic acid to its anterior margin creates mirror-image duplications that led Riddle et al. to conclude that sonic hedgehog homolog directs the zone of polarizing activity in this organism's (\*) limb bud. A mutated copy of *Src* (SARC) was found in an oncovirus afflicting this organism, the Rous sarcoma virus. This organism is the major model for studying the microchromosomes that are typical of its small-genomed class. Studies of this organism indicate an autosomal origin of the Z and W chromosomes. For 10 points, name this model organism, a domestic avian.

ANSWER: chicken [or Gallus gallus domesticus; accept hens or roosters or cockerels or Chanticleer or what have you; prompt on "birds" or "avians" or "Aves" or "dinosaurs" or "tetrapods" or other less specific answers]

18. During the early 19<sup>th</sup> century, differing approaches to playing this instrument included those of the Vienna School of Daniel Steibelt and Friedrich Kalkbrenner and the London School of Johann Baptist Cramer and Jan Dussek. Sigismond Thalberg was a virtuoso on this instrument. The most important manufacturer of this instrument in the late 18<sup>th</sup> century was Broadwood and Sons, which expanded this instrument's range. Heinrich Neuhaus and Dorothy (\*) Taubman were noted pedagogues for this instrument. Famous Soviet players of this instrument include Lazar Berman, Vladimir Ashkenazy, and Sviatoslav Richter. The etudes of Charles-Louis Hanon and Carl Czerny were written for this instrument, for which Rachmaninoff wrote four concertos and his *Rhapsody on a Theme of Paganini*. For 10 points, name this keyboard instrument with 88 keys.

ANSWER: pianoforte [do NOT prompt on or accept "fortepiano", as that is not the same instrument]

19. One of this author's plays features a Jewish millionaire who, because of indigestion, can eat only plain noodles without butter and salt. In another of this author's plays, the protagonist's sister-in-law tells him about a scar on his back where he was stabbed by a hatpin, which proves his identity. In one of his plays, one character admits that he could not tell apart the bloody corpses of a woman's dead brothers, and so he is unsure which brother was (\*) buried. The amnesiac soldier Gaston discovers that he was once a violent man named Jacques Renaud in one play by him. The ballerina Isabelle is hired by Hugo to lure Hugo's twin brother Frederic away from his fiancée in a play by him that was adapted by Christopher Fry as *Ring Round the Moon*, but was originally titled *Invitation to the Castle*. For 10 points, name this French playwright of *Traveller Without Luggage* who used Creon as a symbol for the Vichy government in his 1943 adaptation of *Antigone*.

ANSWER: Jean (Marie Lucien Pierre) Anouilh

20. One member of this noble house established the office of "Magistrate of the Reform" in an anti-Jesuit 1720 constitution that secularized the university this house had founded in 1404. A princess of this house was lambasted in cartoons as Marie Antoinette's lesbian lover. A reckless head of this noble house threatened to involve Spanish troops meant to put down the Dutch Revolt in his own assault on the House of Bourbon in the 1590s. A ruler of this house abolished administrative divisions between its two main holdings in the 1847 (\*) "perfect fusion" and abdicated in 1849 after pushing an anti-Austrian agenda. This house's supporters employed the slogan "Viva VERDI," and Count Camillo di Cavour was appointed Prime Minister by its head, Victor Emmanuel. For 10 points, name this noble house of Piedmont, the royal family of Italy.

ANSWER: House of Savoy-Carignano [or Casa Savoia-Carignano]

## BONUSES

1. The first settlement on this site was a village known as “El Poblado,” which names a square and a district of this city. For 10 points each:

[10] Name this *paisa*-dominated city in the Aburrá valley, home to the University of Antioquia. In the early 2000s, it launched the “Adelante y Sin Reversa” policy in hopes of getting people to look past its history.

ANSWER: Medellín

[10] Medellín was home to this notorious drug lord until his assassination by U.S. forces in 1993. He sponsored numerous youth soccer leagues but is better known for distributing billions of dollars’ worth of cocaine.

ANSWER: Pablo Escobar

[10] This phrase was used to characterize Pablo Escobar’s dealings with Colombian government officials. Its figurative meaning is, essentially, “accept a bribe or face assassination.”

ANSWER: plata o plomo [or “silver or lead”]

2. According to one model, these proteins became widespread due to their utility in catalyzing anabolic reactions in hydrothermal vents. For 10 points each:

[10] Name these proteins that include HiPIP electron shuttles. The scaffold IscU and an enzyme that converts cysteine to alanine are required for the assembly of these proteins, which often contain FCL motifs.

ANSWER: iron-sulfur proteins/clusters [or Fe-S proteins/clusters; antiprompt on specific iron-sulfur proteins such as Rieske proteins or the infamous aconitase]

[10] Iron is also found in this thermodynamically unstable mineral that is formed by the anaerobic corrosion of iron in the hydrogen-evolving Schikorr reaction. This mixed-valence compound coats steel in the “bluing” process.

ANSWER: magnetite [or Fe<sub>3</sub>O<sub>4</sub> or equivalents; or ferrous-ferric oxide; or iron(II, III) oxide; or Fe(II, III) oxide; prompt on iron oxide; do not accept Magnetite, which is a Pokémon]

[10] In an alternative to the magnetite model of magnetoreception, these molecules are formed from cryptochromes. Fishhook arrows represent the flow of unpaired electrons in reactions of these molecules.

ANSWER: free radicals

3. This man's teacher Roscelin promoted an extreme nominalism that led to his being condemned for believing in three gods. For 10 points each:

[10] Name this theologian, whose own works include three logical treatises and a book of contradictory statements that brought the ire of Bernard of Clairvaux, *Sic et Non*.

ANSWER: Peter Abelard [or Pierre le Pallet]

[10] Abelard contrasted this notion of possibility with *de sensu* possibility. Statements expressing this kind of possibility are of the form “there exists some *x* that is possibly *F*” rather than “it is possible there exists some *x* that is *F*.”

ANSWER: de re or per divisionem

[10] Abelard used this word, which also titles his last logical treatise, to name his widely copied style of alternating between opposing theses to find the truth common to both.

ANSWER: dialectic or Dialectica

4. One author from this state gave a series of lectures at Johns Hopkins that were collected as *The English Novel and the Principle of its Development*. For 10 points each:

[10] Name the home state of the poet who wrote about a river near “the hills of Habersham” and “the valleys of Hall,” known as the Poet of the Marshes.

ANSWER: Georgia

[10] Georgia is home to both Sidney Lanier and this character, a black doctor who tries to help his people advance through education. In the novel in which he appears, he gets into a heated political argument with Jake Blount.

ANSWER: Dr. Benedict Mady Copeland [accept either underlined answer]

[10] Dr. Copeland appears in this novel by Carson McCullers, which chronicles the perceived mutual understanding between the deaf-mute John Singer and characters such as the tomboy Mick Kelly.

ANSWER: *The* Heart is a Lonely Hunter

5. Its title page has the dedication “Here is enshrined the soul of .....” [five dots], which may refer to Alice Stuart-Wortley, who is portrayed in its so-called “Windflower” theme. For 10 points each:

[10] Name this concerto composed in 1910 and dedicated to Fritz Kreisler. Its premiere recording was made with the composer himself conducting and with a 16-year-old Yehudi Menuhin as soloist.

ANSWER: Edward **Elgar’s Violin Concerto** in B minor, Op. 61 (prompt on partial answer)

[10] Elgar may be better known for this set of musical portraits of his friends, based on a hidden theme. Its “Nimrod” movement portrays Augustus Jaeger.

ANSWER: **“Enigma” Variations** [or **Variations on an Original Theme** for Orchestra, Op. 36]

[10] The most famous recording of Elgar’s cello concerto features this British cellist as the soloist. The career of this ex-wife of Daniel Barenboim was cut short by multiple sclerosis.

ANSWER: Jacqueline (Mary) **du Pré**

6. The abundance of these highly plastic structures can be increased by fragile X syndrome, which causes a deficiency of FMRP, the protein that regulates their development from filopodia. For 10 points each:

[10] Name these connective protrusions found in pyramidal neurons and the striatum. They contain specialized synaptopodin-dependent ER and are supported by F-actin and resistance necks that compartmentalize calcium.

ANSWER: **dendritic spine** heads [prompt on partial answer]

[10] Sodium enters dendritic spines that receive these post-synaptic potentials. Neurotransmitters like glutamate that increase the likelihood of generating an action potential are described by this adjective, contrasted with inhibitory.

ANSWER: **excitatory** [accept word forms]

[10] Glutamate’s binding to the heterodimeric G protein-coupled receptor T1R1/T1R3 initiates the gustatory signal transduction pathway of this basic taste. This taste is potentiated by the ribonucleotides IMP and GMP.

ANSWER: **umami**

7. This city’s Mediterranean Revival architecture was inspired by the industrialist James Deering’s nearby Villa Vizcaya. For 10 points each:

[10] Name this planned community designed by the avocado baron George Merrick in collaboration with Phineas Paist. Merrick colluded with John Bowman to attract people to this strictly zoned city by building a Biltmore hotel.

ANSWER: **Coral Gables**, Florida [prompt on “Miami”]

[10] The development of Coral Gables followed the tenets of this progressive movement that sought to inspire civic virtue through the power of Beaux-Arts architecture. Its ideas influenced monuments in D.C. via the McMillan Plan.

ANSWER: **City Beautiful** movement

[10] The City Beautiful movement was first manifested on a large scale in the “White City” of the 1893 World’s Columbian Exhibition in this city. Edward H. Bennett and Daniel Burnham created 1909 urban plan for this city.

ANSWER: **Chicago**, Illinois [accept the **Windy City**; accept **hog butcher to the world** or other Sandburg references]

8. This collection includes “The Blue Flannel Suit” and “Apprehensions”, which begins “Your writing was also your fear / At times it was your terror”. For 10 points each:

[10] Name this collection of poems addressed to the poet’s wife, who had committed suicide 35 years before its publication. It covers aspects of their marriage that the poet had refused to discuss for decades.

ANSWER: **Birthday Letters**

[10] *Birthday Letters* is by this British Poet Laureate who wrote *The Hawk in the Rain*. He was the husband of Sylvia Plath.

ANSWER: (Edward James) “Ted” **Hughes**

[10] Another late 20<sup>th</sup>-century British Poet Laureate is this author, who used the repeated refrain “I must go down to the seas again” in “Sea-Fever”, which joins the poem “Cargoes” in his collection *Salt-Water Ballads*.

ANSWER: John **Masefield**

9. Some Orthodox Jews perform this action on young boys at the tomb of Shimon Bar Yochai in Meron on a certain day. For 10 points each:

[10] Name this action that, along with instrumental music and celebratory parties, is forbidden during a certain period of semi-mourning.

ANSWER: getting a **haircut** [accept obvious equivalents; anti-prompt on “shaving”]

[10] A boy’s first haircut in honor of Shimon Bar Yochai is performed on the 33rd day of this 49-day period of semi-mourning, which commences on the second day of Passover.

ANSWER: the **Omer**

[10] One stops counting the Omer on this day, on which the Torah was received and which is sometimes called Pentecost, because it is the 50th day. On this holiday, is customary to eat dairy, including delicious cheesecake.

ANSWER: **Shavuot**

10. He posited the existence of covert semantic concepts that do not appear on the morphological surface of language, but which nonetheless shape our understanding, concepts he called “cryptotypes.” For 10 points each:

[10] Name this linguist, whose ideas laid the foundation for the field of metalinguistics. With Sapir, he co-names a hypothesis of linguistic relativity, which states that language affects how we conceptualize the world.

ANSWER: Benjamin Lee **Whorf**

[10] In Roman Jakobson’s six functions of communication, this word describes the metalinguistic use of language. In Saussurian semiotics, this word denotes the set of conventions that allows signs to acquire meaning.

ANSWER: **codes**

[10] Whorf also invented this phonological term for different sounds that are treated as variants of one phoneme. For example, in English, the letter “p” is more aspirated in “pin” than in “spin”, but we treat them as the same phoneme.

ANSWER: **allophones** [accept word forms such as “**allophonic**”]

11. This culture’s cylinder vases include one showing a rabbit scribe below a seated deity with a broad-brimmed hat of owl feathers and another vase showing a rabbit stealing that same god’s clothes. For 10 points each:

[10] Name this culture that organized some of its architectural complexes into “E-groups”. They decorated some of their stairwells with stucco mask panels.

ANSWER: **Mayan** civilization

[10] Mayan steles inspired the narrative style of this Mexican artist, whose murals include *Man at the Crossroads*.

ANSWER: Diego **Rivera**.

[10] Rivera depicted Karl Marx and various figures from the Mexican Revolution in his *Epic of the Mexican People*, which decorates the stairwell of this building in Mexico City.

ANSWER: **Palacio Nacional** [or **National Palace**]

12. The Coppersmith-Winograd algorithm and Strassen’s algorithm are two improvements to the naive big-O of  $n^3$  algorithm for this operation. For 10 points each:

[10] Name this operation which, as defined on an  $n$  by  $m$  matrix and an  $m$  by  $p$  matrix, returns an  $n$  by  $p$  matrix.

ANSWER: matrix **multiplication**

[10] Strassen’s algorithm is able to achieve a better runtime than the naive divide-and-conquer approach to matrix multiplication because each step only generates this many recursive calls - one fewer than the naive approach.

ANSWER: **7**

[10] The best-known lower bound for matrix multiplication is that it is big omega of this function of  $n$ . This is also the naive lower bound for matrix multiplication since it is the amount of time required to read the entire input.

ANSWER:  **$n^2$**  (“ $n$  squared”) [also accept any constant multiplied by  **$n^2$** ]



13. These organizations were symbolized by brasses in Somerset and the surrounding counties. For 10 points each:

[10] Give the term for these private mutual aid associations, often affiliated with lodges like the Independent Order of Odd Fellows. These organizations were governed by an 1875 Act passed by the Disraeli government.

ANSWER: **friendly societies** [accept singular form]

[10] Friendly societies often provided this service, though they were regulated separately from companies providing it. A “National” act providing this for both health and unemployment as a public service was passed under the Asquith government in 1911.

ANSWER: **insurance** [accept **National Insurance** Act]

[10] This French-born British author and MP considered the National Insurance Act a manifestation of the title entity in *The Servile State*. This Catholic author wrote *Cautionary Tales for Children* and collaborated with G. K. Chesterton.

ANSWER: (Joseph) Hilaire (Pierre René) **Belloc**

14. This book includes many fictional newspaper clippings collected by Mr. Povondra. For 10 points each:

[10] Name this novel in which Captain Van Toch enslaves a race of creatures for pearl farming, and the industrialist Gussie H. Bondy harnesses them for hydroengineering projects.

ANSWER: **War with the Newts** [or **Válka s mloky**; or **War with the Salamanders**]

[10] This man wrote *War with the Newts* as well as *R.U.R.*

ANSWER: Karel **Capek**

[10] This Nobel-Prize-winning Czech poet wrote *Put Out the Lights*, which lamented the Nazi threat over Prague after the Munich Pact. His collection *The Nightingale Sings Badly* includes his impressions of the Soviet Union.

ANSWER: Jaroslav **Seifert**

15. A kuchisake-onna has this part of her body mutilated while a futakuchi-onna has an extra one on the back of her head. For 10 points each:

[10] Name this part of the body from which Tefnut is born. An adze is applied to this part of the body in an Egyptian ceremony to restore the senses of the deceased.

ANSWER: **mouth** [accept equivalents like **maw**]

[10] The god who opens the mouth in that ceremony is this creator worshipped at Memphis. The bull Apis is an aspect of this non-Osiris god of craftsmen, who fathers Nefertem with his consort Sekhmet.

ANSWER: **Ptah**

[10] Purification during the ceremony is undertaken by the astronomical god Dwn-‘nwy, who is identified with this constellated son of Thyria and Apollo. He shares his name with a Trojan son of Poseidon who was raised by seagulls.

ANSWER: **Cygnus** [or **Cycnus**]

16. The larger of the two figures in this painting wears a dress with green, white, and pink vertical stripes. For 10 points each:

[10] Name this painting that shows a little girl having her feet washed in a basin, while sitting on the lap of her mother.

ANSWER: *The **Child’s Bath*** [or *The **Bath***]

[10] *The Child’s Bath* is by this American Impressionist painter, known for her many domestic scenes of mothers with their children.

ANSWER: Mary (Stevenson) **Cassatt**

[10] Cassatt’s most famous non-domestic paintings were her portraits of women in fancy dresses with fans and/or opera glasses titled for these parts of the theater in which they sit.

ANSWER: **loge** [also accept **In The Loge**, **Woman in a Loge**, or **Woman with a Pearl Necklace in a Loge**]

17. One particularly amusing way to use this result is to measure a dead body's temperature, then do so again a few hours later, in order to figure out how long it's been dead. For 10 points each:

[10] Identify this law, which states the time-derivative of energy is equal to  $h$  times the difference between two temperatures.

ANSWER: Newton's law of cooling

[10] Most of the cooling of an object is caused by this type of heat transfer via the bulk motion of fluids.

ANSWER: convection [or word forms]

[10] This man's namesake convection cells alternate between clockwise and counter-clockwise rotation and form when a layer of fluid is heated from below. That setup is named for him and Rayleigh.

ANSWER: Henri (Claude) Bénard

18. Adherents of this school of thought sought to found the legitimacy of the state on the guarantee of economic freedom. For 10 points each:

[10] Identify this school of thought promoted by Franz Böhm and Walter Eucken, which derives its name from a journal they edited. It emphasized the importance of competition and the idea that the “social market economy” grew out of it.

ANSWER: Ordoliberalism

[10] This man enacted Ordoliberal policies in West Germany during his tenures as Minister for Economics under Konrad Adenauer and Chancellor, achieving what was called the *Wirtschaftswunder*, or economic miracle.

ANSWER: Ludwig (Wilhelm) Erhard

[10] Eucken's ideas influenced the Mansholt Plan, which sought to reduce the number of people working in this industry by modifying the “Common Policy” governing this industry in Europe.

ANSWER: agriculture

19. This program emphasizes the ability to work with “informational text”. For 10 points each:

[10] Identify this set of educational standards, promoted by the National Governors Association. It currently consists of standards in English and mathematics and does not require students to learn cursive.

ANSWER: Common Core State Standards Initiative

[10] The math standards are based on the “Principles and Standards” developed by this organization. This organization's promotion of “reform mathematics”, associated with the textbook Mathland, was criticized by Mathematically Correct.

ANSWER: National Council of Teachers of Mathematics [or NCTM]

[10] Much of the funding for the development of the Common Core has come from this philanthropic organization. Other projects funded by this organization include the Millennium Scholars program and the Teaching Channel.

ANSWER: Bill & Melinda Gates Foundation

20. In this play, a hunchbacked gardener's back is straightened out in his excitement over the news of the male protagonist's high exam score shortly after the female protagonist obtains documents securing her release from hell. For 10 points each:

[10] Name this most prominent of its author's *Four Dreams*, a twenty-hour play about a student who is arrested as a grave robber after discovering the beautiful portrait of a governor's daughter who is later resurrected in her garden.

ANSWER: *The* Peony Pavilion [or Mǔdān tǐng]

[10] *The Peony Pavilion* was written during this Chinese dynasty. Other works of literature written during this dynasty include *Pingyao Zhuan*, *Romance of the Three Kingdoms* and the *Yongle Encyclopedia*.

ANSWER: Ming Dynasty [or Ming Chao; or Empire of the Great Ming]

[10] In the Ming novel *Journey to the West*, this character wears a necklace of human skulls. This weak follower of Xuánzàng was a general in heaven until he broke Xi Wang Mu's vase and was reincarnated as a river demon.

ANSWER: Shā Wùjìng [or Monk Sha; or Shā Sēng; accept Friar Sand; accept Sandy; accept Sha Gojō; accept Sa Oh Jeong; accept Sa Ngô Tinh; accept Sa Tǎng; accept Sua Cheng]