

## CMST II

### Packet 2

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1. **A contemporary of this author accused him of “completely” lacking “any philosophy of life” in the piece “From the Papers of One Still Living,” which reviews this author’s novel about a failed violinist in love with his Jewish childhood friend Naomi. A Jackie Wulfschalger biography alleges that this author had a homosexual relationship with dancer Harald Scharff. This author’s overstayed welcome at Gads Hill Place may have led Charles Dickens to base Uriah Heep on him. The Emperor of (\*) China learns of a creature in his kingdom from a book by the Emperor of Japan but comes to prefer a jewel-encrusted mechanical replica in a story by this author credited with inspiring Jenny Lind’s popular nickname. Lind’s rejection of this author likely inspired a story in which Gerda rescues Kai from the Lapland palace ruled by a cold-hearted queen. For 10 points, name this author who said that he was inspired by his own experiences to write “The Ugly Duckling.”**

ANSWER: Hans Christian Andersen (The review in the first line is of the semi-autobiographical *Only a Fiddler* and was by Søren Kierkegaard. The unnamed stories mentioned are “The Nightingale” and “The Snow Queen.”)

<CS - Literature: European>

One method of performing this task involves finding collections of particles within a linking length of order the interparticle separation distance and is known as the Friends-of-Friends algorithm. For 10 points each:

[10h] Name this task, also performed by the ROCKSTAR algorithm, which identifies tightly associated groups of particles in simulations like Millennium and Bolshoi.

ANSWER: dark matter halo finding [accept any answer that mentions you are identifying halos from a dark matter only simulation; prompt on answers indicating that you are identifying clusters of dark matter or similar]

[10m] The main alternative to friends-of-friends-based algorithms for dark matter halo identification involves finding spherical regions with high values of this quantity. This quantity’s dependence on radius can be fitted to the pseudo-isothermal or Navarro–Frenk–White profiles.

ANSWER: dark matter density

[10e] Identified halos are assigned positions, velocities, and this quantity. Each particle in the Bolshoi simulation had a value of 200 million times the sun’s value of this quantity, which serves as an astronomical standard.

ANSWER: mass

<JL - Science: Astronomy>

2. **A photo from Gelett Burgess’s article “The Wild Men of Paris” preserves a lost Jean Metzinger (“met-san-ZHAY”) painting of this activity. A painting of this activity that features angular white and blue shapes over a red and brown background is one of David Bomberg’s best-known works. An Albert Gleizes (“al-BEAR GLEZ”) painting titled for this activity, reproduced in *Du “Cubisme,”* depicts it in front of factories producing swirling smoke. That smoke appears behind working class people doing this activity at the same location in a painting that features a boy with a red hat on the right holding his hands to his mouth. That painting is (\*) paired with a work depicting bourgeois people with parasols. In another Post-Impressionist painting of this activity, trees form a triangular frame around groups of nude people gathered on either side of the canvas. For 10 points, give this activity depicted “at Asnières” (“ahn-YAY”) by George Seurat (“zhorzh sir-AH”) which titles a “*Large*” painting by Paul Cézanne.**

ANSWER: bathing [accept “taking a bath” and other such equivalents; accept “bathers,” accept anything related to mikveh in response to the initial clues about Bomberg; accept *Les Grandes Baigneuses*, *The Mud Bath*, *Bathers at Asnières*, *Une Baignade, Asnières*, *Big Bathers*, or *Large Bathers*]

<JM - Arts: Painting and Sculpture>

Many pre-independence colonies experimented with namesake “bank-notes” that used this commodity as collateral and that were abandoned partly because they made it too easy for small farmers to pay off debts. For 10 points each: [10e] Name this commodity. Most colonies only gave males who owned some of this commodity the right to vote.

ANSWER: **land** [accept **realty** or **real** property/estate]

[10h] Brendan McConville’s *These Daring Disturbers of the Public Peace* chronicles a string of property riots by small farmers in this colony, which gave women the vote in 1776 but took it back in 1807. This non-Carolina colony was originally granted to Sir George Carteret and Lord Berkeley of Stratton.

ANSWER: **New Jersey**

[10m] Some of the grievances leading to Virginia’s Bacon’s Rebellion stemmed from this system, which granted land to colonists in exchange for bringing indentured servants but typically left the latter landless.

ANSWER: **headright** system

<JG - History: American>

3. **Elmer Gaden, the pioneer of theoretical studies of this process, classified it into three types with differing volumetric rate curves. EF systems enhance this process by using methyl viologen or various *Shewanella* proteins as electron mediators. It’s not medicine, but application of advances in genetic engineering to traditional forms of this process is sometimes called its “precision” form, which includes the use of a modified form of this process to create heme by (\*) Impossible Foods. Aeration causes increased rates of cell growth but decreased rates of this process, as described by the Pasteur effect. This process that takes place in most bioreactors is exploited for the mass production of bacterial secondary metabolites like penicillin. For 10 points, name this process in which microorganisms break down metabolites in anaerobic conditions, as exemplified by using *S. cerevisiae* to produce ethanol.**

ANSWER: **fermentation** [or word forms; accept specific types such as ethanol **fermentation**; prompt on **brewing** or **winemaking**]

<SS - Science: Biology>

This author wrote the introduction for *The Little Wings*, a poetry collection written by dollhouse expert and future wife of Graham Greene, Vivien Dayrell-Browning, when she was only 15. For 10 points each:

[10m] Name this author of a novel about Gabriel Syme, a detective in a secret unit investigating an underground anarchist movement that he infiltrates by goading the poet Lucian Gregory.

ANSWER: G. K. **Chesterton** [or Gilbert Keith **Chesterton**]

[10e] Chesterton is also known for his writings on this Christian faith, whose themes feature prominently in novels by Graham Greene and Evelyn Waugh, fellow converts to this faith.

ANSWER: Roman **Catholicism** [accept Roman **Catholic** Church]

[10h] In the final scene of *The Man Who Was Thursday*, Syme asks Sunday if he has ever done this action after Sunday’s conspiracy is revealed. In response, Sunday’s face fills “the whole sky” and answers with the gospel quotation “Can ye drink of the cup that I drink of?”

ANSWER: **suffered** [accept word forms; accept “have you ever **suffered**?”]

<JM - Literature: British>

4. A text from this archaeological site contains the earliest reference to a group mentioned in Amos 6, the *marzeah*, who ritually contacted the dead by getting absolutely plastered. The title character of a text from this place dies when a goddess turns into a falcon and drops Yatpan onto his head. Ilmilku recorded epics found in this place, including one in which the Kotharat help the patriarch Dan'il finally have a son. In texts from this site, a goddess kills that title son, (\*) Aqhat, over a fancy bow and elsewhere grinds a death god who killed her brother into dust. That goddess is Anat. This site near Ras Shamra names an alphabetic cuneiform used to record myths about a god's struggles with Mot and the sea god Yam. For 10 points, name this city-state on the Syrian coast whose Ba'al Cycle tablets are primary sources on Canaanite religion.

ANSWER: Ugarit [accept Ras Shamra until mentioned; accept Ugaritic; anti-prompt on Ras Ibn Hani or Minet el-Beida by asking "which were part of what ancient city-state?"]

<JG - History: Ancient/Other (Mythology)>

This composer's idiosyncratic Piano Concerto in C features a Tarantella before a fifth movement "Cantico" where a male choir sings text from Adam Oehlenschläger's ("AY-dum UH-len-SHLAY-ur's") *Aladdin*. For 10 points each: [10m] Name this *fin de siècle* Italian composer best known for late romantic works like the one-act opera *Arlecchino*, a number of piano transcriptions of Liszt and Bach, and the unfinished opera *Doktor Faust*.

ANSWER: Ferruccio (Dante Michelangiolo Benvenuto) Busoni

[10e] This other Italian composer's piece "La Danza" is based on the Tarantella's Neapolitan form. The overture to this composer's opera *William Tell* is a staple of numerous soundtracks.

ANSWER: Gioachino Antonio Rossini

[10h] Ottorino Respighi adapted "La Danza" and a number of Rossini's other piano pieces for this one-act ballet choreographed by Léonide Massine.

ANSWER: *La Boutique fantasque* [or *The Magic Toyshop*; or *The Fantastic Toyshop*]

<JM - Arts: Classical Music>

5. *Description acceptable.* Kiefer and Wolfowitz proved the equivalence of two approaches to this task, based respectively on maximizing a determinant and on minimizing the max diagonal entry of a matrix, called D-optimality and G-optimality. A classic 1935 book titled for this task introduced an anecdote about Muriel Bristol's ability to discern the order in which milk had been added to a cup, the so-called "lady tasting tea." Hadamard matrices are used in an approach to this task developed by Plackett and Burman. Orthogonal arrays proposed by Taguchi are often used for this task, for which (\*) Ronald Fisher popularized the use of Latin squares. As part of this task, blocking can be used to account for nuisance factors. Approaches to this task include matched pairs, repeated measures, and full factorial. This task involves planning out the right way to assign and randomize treatment. For 10 points, name this task of planning a procedure meant to test a scientific hypothesis.

ANSWER: experimental design [or equivalents such as design of experiments; accept synonyms for "design" like "construction" or "planning;"] accept optimal design of experiments; prompt on experimentation or word forms by asking "what aspect of experimentation?"; prompt on answers that mention assigning treatment until mentioned]

<TM - Hard Social Science: Other>

The theological turn in French philosophy of this discipline was debated in a collection by Dominique Janicaud ("ZHAH-nee-KOH"), who argued that thinkers like Henry ("hawn-REE") and Chrétien ("KREH-tyen") "smuggled" religious notions into it. For 10 points each:

[10e] Name this philosophical school whose namesake method, originating with Edmund Husserl's ("HU-surl's") *Logical Investigations*, "brackets" theoretical assumptions to analyze first-personal conscious experience.

ANSWER: **phenomenology**

[10m] In *The Theological Turn*, Janicaud targets this philosopher, who emphasized "ethics as first philosophy" and theorized the obligation borne of one's encounter with the "face" of the "Other."

ANSWER: Emmanuel **Levinas** ("lev-ee-NAHSS") [or Emmanuelis **Levinas**]

[10h] Janicaud also paints this philosopher as a culprit of the *Theological Turn*. This thinker advances the "gift" and "saturated phenomena" as central concepts in works like *God Without Being* and *The Idol and Distance*.

ANSWER: Jean-Luc **Marion** ("mahr-ee-OWN")

<JM - Thought: Philosophy>

6. **It's not the harp, but this instrument is the centerpiece of a Pentecostal gospel music genre performed by Robert Randolph and the Campbell Brothers named for a "Sacred" one. Though he doesn't play it himself, King Sunny Adé's band introduced this instrument to jùjú music. George Beauchamp created the first electric model of these instruments, the "Frying Pan." The complex standardized tuning setups of one type of this instrument, including E9, C6, and "universal," are referred to as "copedents" ("co-PEE-dents"). The virtuoso Sol Ho'opi'i ("HO-oh-PEE-ee") popularized this non-indigenous instrument in (\*) Hawaiian music. Following the work of players like Buddy Emmons, Jimmy Day, and Zane Beck, this instrument's lap and pedal varieties became a staple of American country music. For 10 points, name this family of guitar-derived instruments played horizontally with a metal slide, some of which can be manipulated with the feet and knees.**

ANSWER: **steel** guitar [accept pedal **steel** guitar, console **steel** guitar, or lap **steel** guitar; generously prompt on electric **guitar** or slide **guitar** before mention, but reject "acoustic guitar"]

<JM - Arts: Other Music>

The government created uniformed dance troupes called *animations* to support this policy, which banned all religions except for state-run Catholic, Protestant, Orthodox, and Kimbanguist churches. For 10 points each:

[10m] Name this suite of cultural policies showcased at the Rumble in the Jungle. A dictator used this program to create the "three Zs" and to mandate an outfit named for a French phrase that literally means "down with suits."

ANSWER: L' **Authenticité** ("(L)AW-ton-TEE-see-TAY") [accept any answer including a word form of **authentic**; prompt on **Mobutism** and word forms or answers that mention **Mobutu**; prompt on but DO NOT OTHERWISE REVEAL **Zaïrianization** and word forms or any answer describing policies in **Zaïre** or the **Democratic Republic of the Congo/DRC**]

[10e] The brutal kleptocrat Mobutu Sese ("seh-say") Seko renamed this country as part of his *authenticité* program. Mobutu took power here after the assassination of its independence leader Patrice Lumumba.

ANSWER: **Democratic Republic** of the **Congo** [or La **République Démocratique du Congo**; accept **DRC**, **RDC**, **Zaïre**, or **Congo-Kinshasa**; prompt on partial answer; do NOT accept or prompt on "Congo Republic," "Republic of Congo," "République du Congo," or "Congo-Brazzaville"]

[10h] Journalist Jean-Pierre Langellier claims this Belgian Africanist historian coined the name "Zaïre" for Mobutu. His book *Oral Tradition as History* pioneered now-standard methods for using oral sources as primary evidence.

ANSWER: Jan **Vansina** (The "outfit" in the first part is the "abacost," from "à bas le costume.")

<JG - History: World>

7. **A character created by this playwright rushes in to rescue a vase that he gifted his mother when she begins breaking things during an argument with her husband. In that play by this author, a woman describes to her husband how she came home from shopping to find a florid letter from his best friend Ross about her husband's infidelity. A couple created by this playwright begins fighting when the husband refuses to sink to the bottom of a (\*) cove like he used to do. A play by this author about the Pritzker Prize-winning architect Martin ends as his wife Stevie drags in the dead title character, with whom he had been committing bestiality. A woman created by this playwright exclaims, "You cannot do that! I will not let you decide that for yourself!" when her husband announces that their son died while swerving to avoid a porcupine. For 10 points, name this playwright of *The Goat, or Who Is Sylvia?*, *Seascape*, and *Who's Afraid of Virginia Woolf?***  
 ANSWER: Edward (Franklin) **Albee** (III)  
 <TM - Literature: American>

In Turkey, this art form centers on the illiterate character Karagöz ("kah-rah-gurz"), who comes up with ill-fated get-rich-quick schemes, and the educated Hacivat ("hah-jee-vaht"), whose poetic language is no match for the former's wit. For 10 points each:

[10e] Name this culturally widespread artform in which practitioners use their hands or pre-made silhouette objects to project images onto a fabric screen by occluding a light source.

ANSWER: **shadow puppetry**/eering [or **shadow theater/plays**; prompt on puppetry/eering or shadows]

[10h] Other than wood, most shadow puppets in southeast Asian cultures are made with this material, which gives its name to the Thai forms *nang talung* and *nang yai*. Artworks in this material are prone to degrading by "red rot."

ANSWER: **leather** [or cow**hides**]

[10m] This specific form of shadow puppetry is a celebrated part of the cultural heritage of Java and Bali, where it is accompanied by gamelan music. Its most common *kulit* form uses flat leather puppets.

ANSWER: **wayang** kulit/klitik/golek

<JM - Arts: Misc>

8. **The traveler Ibn Ḥawqal claimed that there were over 300 mosques in this region's capital because its people were utter morons who only ate onions and all wanted their own personal mosque. The poet Abū'l Ḍaw' ("eh-bull-DOW") and the admiral George of Antioch served a ruler of this region. Forces from this region defeated Otto II at the Battle of Stilo. The elderly judge Asad ibn al-Furāt invaded this region to support the rebel Euphemius. The Fāṭimid general Jawhar was nicknamed for his ancestry in this region, once ruled by the (\*) Kalbids. While fighting in this region, William I of Hauteville gained the nickname "Iron Arm." The Aghlabid dynasty completed the Arab conquest of this region by capturing Taormina. Muḥammad al-Idrīsī ("ih-DREE-see") produced his world map while serving a ruler of this region, Roger II. This region developed a "Norman-Arab-Byzantine" culture from repeated conquests. For 10 points, name this island, ruled throughout the Middle Ages from Palermo.**  
 ANSWER: **Sicily** [or al-**Siqilīyyah**; prompt on Italy; prompt Southern Italy and equivalent descriptions; prompt on Apulia and/or Calabria after "Hauteville" with "what other region did these Hautevilles control?"] (The second sentence concerns Roger II.)  
 <VA - History: European>

Charles Taylor wrote a massive tome titled for this kind of “Age” in which a Saba Mahmood monograph explores “*Religious Difference*.” For 10 points each:

[10e] Give this term for a social state characterized by indifference or neutrality regarding religions. Although it has its own more specific connotations, the French constitutional principle *laïcité* is usually translated as this term.

ANSWER: **secularity** [accept **secularism** and **secularness**; accept *A **Secular** Age* and *Religious Difference in a **Secular** Age*]

[10m] This sociologist popularized the term “postsecularism” later taken up by Taylor. In the “Universal Pragmatics” program, this thinker and Karl-Otto Appel developed the concept of “communicative rationality.”

ANSWER: Jürgen **Habermas**

[10h] In *Formations of the Secular*, this anthropologist of religion argued that neoliberal secularism is a political enforcement of Enlightenment modernist values, rather than merely a benign religious tolerance.

ANSWER: Talal **Asad**

<JM - Thought: Soft Social Science>

9. **An ancient ascetic movement dedicated to this deity was named “skull-men” or Kāpālika for their use of skulls as begging bowls. Though not primarily a follower of this deity, Ramakrishna used a rhyming phrase with this deity’s name to teach that all things are the divine, similar to a phrase from Tirumular meaning love is this god. Meykandar systematized a sect focused on this deity based on the *Tirumurai*, a collection of works by Nayanar poet-saints. Abhinavagupta advanced a nondualist school worshipping this deity to supersede that earlier Kashmiri (\*) Siddhanta sect. A large symbol of this deity forms from natural ice at the Amarnath Temple. This god’s devotees’ practices often overlap with Shaktism, as many consider Devi to be his complementary creative aspect. This deity is represented by phallic objects called *lingam* and is sometimes depicted as the Nataraja dancing. For 10 points, name this trident-wielding Hindu deity sometimes called “the destroyer.”**

ANSWER: **Shiva** [or **Mahadeva**; or **Hara**; or **Sivudu**; prompt on **Rudra**; accept answers of **Shaivism**, **Shaivites**, and **Shaivas**] (Ramakrishna’s rhyming phrase is “jiva is Shiva” or “*jatra jiv tatra Shiv*,” and Tirumular’s phrase is “*Anbe Shivam*.”)

<JM - Religion>

An asymmetric reaction named for Sharpless is a common catalytic method for generating two of these functional groups vicinal to each other. For 10 points each:

[10e] Name these functional groups that diols have two of. Compounds with this functional group have higher boiling points due to the presence of hydrogen bonding.

ANSWER: **hydroxyls** [accept **alcohols**; accept **OH**]

[10m] The dihydroxylations named for Sharpless and Upjohn both use this catalyst to synthesize diols from alkenes. The extremely dense metal at the center of this toxic coordination compound has an oxidation state of +8.

ANSWER: **osmium tetroxide** [or **OsO4**]

[10h] The Sharpless dihydroxylation uses this anion to reoxidize osmium tetroxide, in contrast to the Upjohn reaction’s use of NMO. Potassium salts of osmate, carbonate, and this anion are found in AD-mix.

ANSWER: **ferricyanide** [or **Fe(CN)6**]

<SS - Science: Chemistry>

10. A text titled for this philosopher that states “I imagine the gift of infinite suffering” was the last in the sequence “The Practice of Joy Before Death,” published in *Acéphale*. That piece, which begins “I myself am War,” is a “Meditation” titled for this philosopher by Georges Bataille (“ZHORZH buh-TIE”). M. M. McCabe challenged the received understanding of this philosopher's line about an emulsified beverage, arguing that it parallels this philosopher's statement that sea water is good for fish but poisonous to humans. This thinker's disciple (\*) Cratylus proposed a more extreme version of one of his aphorisms. This is the first known thinker to use the word *logos* for a general organizing principle. This thinker's observation that the road up is the same as the road down illustrates his idea of the unity of opposites. For 10 points, name this pre-Socratic philosopher who illustrated his focus on constant change by saying that you cannot step in the same river twice. ANSWER: **Heraclitus** of Ephesus (The Bataille piece is “Heraclitean Meditation,” and Cratylus infamously said you can't step in the same river *once*.)

<JM - Thought: Other Philosophy>

Iconography of this deity and her twin with intertwined snake-like tails inspired Jordan Peterson's infamous claim that ancient people instinctively understood the double helix structure of DNA... or something. For 10 points each: [10e] Name this deity from Chinese mythology who created the first human offspring with fire, ropes, and yellow clay with her brother-husband Fuxi (“foo-SHEE”) on Mount Kunlun.

ANSWER: **Nüwa** [or **Nügua**]

[10m] In some variants, Huaxu became pregnant with Nüwa and Fuxi after stepping in this deity's footprint. This husband of the lightning goddess Dianmu creates thunder using a drum and punishes secret crimes with a chisel.

ANSWER: **Léigōng** [or **Léishén**]

[10h] Much of contemporary rural Daoist practice focuses on the Thunder Ritual, which concerns this deity rather than Léigōng or Dianmu. He is often depicted riding a black tiger, or with a rod that can turn iron into gold.

ANSWER: **Zhao Gongming** [or **Chao Kung-ming**; or **Zhao Gong Yuanshuai**; or **Caishen**]

<JM - Geography (Mythology)>

11. Harmonic oscillations of these objects can be exactly modeled by multiplying the quasi-steady approximation by a frequency-dependent transfer function in a solution found by Theodore Theodorsen. 3D analogs of these objects can be modeled by expressing the distribution of a quantity denoted capital gamma-sub-y as a Fourier series over them. The product of fluid density, fluid velocity, and a line integral of “velocity cosine theta” around one of these objects equals their output according to the (\*) Kutta-Joukowski theorem. A point on the chord line is used to approximate the vorticity-induced flow velocity at a point on the mean line in the “thin” theory of these objects. As these objects accelerate from rest, they generate a starting vortex at their trailing edge. When the boundary layer detaches on the top surface of these objects, a stall occurs. Cambered examples of these objects can work even at zero angle of attack. For 10 points, name these objects that generate lift when moving through a gas.

ANSWER: **airfoils** [accept airplane **wings**]

<DE - Science: Physics>

This poet wrote, "I've read the catalog of ships just to the middle," and asked "Whom shall I listen to?" in a piece titled "Insomnia. Homer. The rows of stretched sails." For 10 points each:

[10h] Name this poet who remarks on "unsatisfied oblivion, / The misty chime of thoughts..." at the conclusion of "A meager beam in a cold measure" from his collection *Stone*.

ANSWER: Osip (Emilyevich) **Mandelstam**

[10e] This one-time lover of Mandelstam wrote sections titled "Instead of a Foreword" and "Crucifixion" in her "Requiem," and reflected on the Leningrad siege in "Poem Without a Hero."

ANSWER: Anna **Akhmatova** ("ahk-MAH-tuh-vuh") [or Anna Andreyevna **Gorenko**]

[10m] Mandelstam and Akhmatova were leading figures in this poetic movement outlined by a Mikhail Kuzmin essay, which prized "Apollonian clarity" over the "Dionysian frenzy" of the Symbolists.

ANSWER: **Acmeist** movement [accept word forms like "**Acmeists**;" accept answers of *The Guild of Poets*]

<JM - Literature: European>

- HALFTIME -

12. A political cartoon shows this politician sliding wooden blocks around while feverishly attempting to solve the "great presidential puzzle." Another politician became this man's lifelong rival by publishing Provost-Master General James B. Fry's accusations of war-time graft. This man was the second and last person to decline a Supreme Court seat after receiving Senate confirmation. This politician's motion at the 1880 RNC for all delegates to pledge their support to the eventual nominee was only opposed by that nominee. To protest William H. Robertson's appointment as (\*) Port Collector, this man resigned from the Senate with his longtime ally Thomas C. Platt. This man derided the efforts of "Half Breeds" led by his rival James G. Blaine as "snivel service reform." His political fortunes suffered when a supporter of his faction, Charles Guiteau, shot James Garfield. For 10 points, identify this radical Republican from New York who led the Stalwarts.

ANSWER: Roscoe **Conkling**

<CK - History: American>

This standard's straight-feel A section begins on the 1 chord and then chromatically slides a major triad downward while maintaining the root on the bass, and its swung B sections are built around 2-5-1s. For 10 points each:

[10h] Name this jazz standard composed by Bronisław Kaper for a 1947 film of the same name. Its lyrics describe how the title location "provides the setting... for nights beyond forgetting."

ANSWER: "On **Green Dolphin Street**"

[10m] The A section of "On Green Dolphin Street" exemplifies this concept in harmony theory in which the bass note is kept the same under changing harmony.

ANSWER: **pedal** point [or **pedal** tone/note; or **organ point**]

[10e] A classic rendition of "On Green Dolphin Street" appears on the release *1958 Miles*, featuring the same quintet behind Davis as this 1959 record whose songs include "So What," "Blue in Green," and "Flamenco Sketches."

ANSWER: **Kind of Blue**

<JM - Arts: Jazz>

13. **Richard Webb and Michael Sells argued that, like Wilfred Bion, this thinker’s work deployed a “mystical language of unsaying” structurally similar to apophatic theology. Feminist scholars have debated the implications of this thinker’s statements that “Woman does not exist” and “Woman is a symptom of man.” The Ljubljana (“LYOO-bull-YAH-nuh”) School is known for approaching post-Marxist political philosophy using this thinker's theories. Jacques-Alain Miller (“mee-LAIR”) edited transcripts of this thinker’s yearly (\*) seminars, including *The Four Fundamental Concepts*. This theorist used “mathemes” to illustrate key concepts in diagrams like the “graph of desire,” which depicts the “chain of signification” and the “barred subject.” For 10 points, name this thinker who introduced the three “registers” of the Real, Symbolic, and Imaginary, the “*objet a*” (“OB-zhay puh-TEE AH”), and the “mirror phase,” a French post-Freudian psychoanalyst.**  
 ANSWER: Jacques (Marie Émile) **Lacan** (“luh-KAHN”)  
 <JM - Thought: Soft Social Science>

In *Europe’s Inner Demons*, Norman Cohn argued, contra Karl Ernst Jarcke (“YAR-kuh”) and Franz Josef Mone (“MAH-nuh”), that persecutions of these people had no basis in heterodox religious beliefs. For 10 points each:  
 [10e] Name these people. Margaret Murray popularized the idea that they practiced surviving pre-Christian pagan traditions, explaining church authorities’ use of the *Malleus Maleficarum* to accuse them of pacts with the Devil.  
 ANSWER: **witches** [accept “**witchcraft**” or “the **witch**-cult hypothesis”; prompt on women]  
 [10m] This “microhistory” pioneer contended that there was a “kernel of truth” to Murray’s hypothesis in *The Night Battles*, a study of the *benandanti* movement. He discussed the miller Menocchio in *The Cheese and the Worms*.  
 ANSWER: Carlo **Ginzburg**  
 [10h] This historian examined Wicca and other neopagan groups’ embrace of the witch-cult hypothesis in *The Triumph of the Moon*. Many of those groups find his work contentious in its Cohn-inspired denial of the witch-cult.  
 ANSWER: Ronald (Edmund) **Hutton**  
 <JM - History: Ancient/Other>

14. **The soloist for this instrument enters a piece by stating the theme (read slowly) rising B, short C, long D, down to rising long G, E, short F sharp, long G, down to repeated long C. That 3/2 Largo movement from a G major piece showcasing this instrument is followed by an oft-performed Allegro built around a syncopated motif. Three members of the Stamitz family composed numerous concerti for this instrument after the first such piece was written by Georg Phillip (\*) Telemann. The sixth Brandenburg Concerto is scored for two of these instruments “da braccio” to distinguish them from a similarly named early instrument. This instrument plays the theme in movements titled “March of the Pilgrims” and “Orgy of the Brigands.” After Niccolò Paganini acquired one of these alto-clef instruments, he encouraged Hector Berlioz to compose *Harold in Italy* around it. For 10 points, name this second-highest instrument in a modern string quartet.**  
 ANSWER: **viola** [accept “**viola da braccio**” before mention, but reject answers of “viola da gamba” or “viola d’amore;” prompt on answers of viol by saying “give the specific type of viol or the modern instrument into which it evolved” before “**viola da braccio**” is read]  
 <JM - Arts: Classical Music>

Brian Silliman and colleagues showed that periwinkle snails can exert top-down control over the cordgrass *Spartina*, which dominates the lower zones of many of these ecosystems. For 10 points each:

[10m] Name these regularly flooded ecosystems that, like mangrove swamps, are often highly productive and found along estuaries and oceanic coasts. Their distinctive smell is due in part to sulfate-reducing microbes.

ANSWER: **salt marshes** [prompt on tidal marshes; prompt on saltwater or brackish ecosystems; prompt on wetlands, mudflats, or intertidals]

[10e] Along the Atlantic, *Spartina* often benefits from biodeposition of this nutrient by the ribbed mussel. In salt marshes, free-living benthic cyanobacteria are often just as important as rhizobia for fixing this elemental nutrient.

ANSWER: **nitrogen** [or **N**]

[10h] Bertness and Callaway's stress-gradient hypothesis posits that this interaction predominates in stressful environments like the lower zones of salt marshes. Connell and Slatyer proposed that this interaction between species of the same guild is most important during primary succession.

ANSWER: **facilitation** [prompt on positive interactions, mutualisms, or commensalisms]

<VA - Science: Biology>

15. **This character spends hours a day staring through a fence at a young girl in mourning who has just lost her baby, until after three days the girl resumes her life seemingly unperturbed. This character uses a Y-shaped stick and an old shoe to fashion a catapult for killing birds. This character is urged, "I appeal to you... yield!" at the end of a section that is narrated by a doctor who appends an "s" to his first name. This man reflects on his time at the (\*) institutional school Huis ("house") Norenus throughout a novel in which he is pushed into servitude by the Visagie's grandson. After emerging from hiding on a farm, this character is taken to a rehabilitation camp. Amid martial law imposed during a civil war, this character abandons his job as a gardener and sets out for Prince Albert with his mother. For 10 points, name this cleft-lipped protagonist of a J. M. Coetzee ("kuut-SEE") novel titled for his "*Life & Times*."**

ANSWER: **Michael** K [accept *Life & Times* of **Michael** K; accept **Michaels**; prompt on **K**]

<TM - Literature: World>

Because the loss of click consonants has been observed but not their genesis, linguists at Stanford controversially cited the mitochondrial DNA of these people to argue that clicks existed in the first language. For 10 points each:

[10h] Name this genetically and linguistically unique ethnic group, a small but non-endangered community in Tanzania. Their language is notable as its clicks could not have been adopted from neighbors.

ANSWER: **Hadza** [or **Hadzane**; or **Hadzabe**; or **Wahadza**]

[10e] Though first classed as Khoisan, Hadza is now thought to be this kind of language, lacking any known genealogical relationships. Basque is the best-known of these languages, which are not classifiable into any family.

ANSWER: language **isolates**

[10m] Languages in this family like Xhosa ("KOH-suh") and Zulu adopted click consonants from neighboring Khoisan tongues. Malcolm Guthrie's classification of this language family was critiqued by Joseph Greenberg.

ANSWER: **Bantu** languages [or **Bantu** language family; prompt on Southern **Bantoid**]

<JM - Hard Social Science: Linguistics>

16. **In a violation of Badger’s rule, the presence of this modification increases the stability of ferryl porphyrin complexes. Construction of  $\alpha$ -stereocenters adjacent to ketones allows enzymatic forms of this modification to be enantioselective. HMPN is a second-generation member of a class of amine-substituted naphthalene-based compounds that are named for their affinity for this modification. Though it does not form enolates, the application of this modification catalyzes enediol (“EEN-die-ol”) rearrangements by inducing tautomerization. Unlike (\*) hemiacetals (“hemi-ASS-it-ahls”), acetal (“ASS-it-ahl”) groups *must* be activated via this modification rather than its opposite. Aldol condensations that are initiated by this modification begin with the formation of an oxonium ion. A molecule will undergo this modification if its pKa is lower than the surrounding solution’s pH. For 10 points, name this modification done to bases by Brønsted–Lowry acids, in which a molecule accepts the hydrogen cation.**

ANSWER: **protonation** [accept descriptive answers like **adding a proton**; accept descriptive answers about **adding H<sup>+</sup>** or **hydronium**; reject answers involving “hydrogen” without the “plus” or other indication that it is a positive ion.] (The class of compounds described in the third clue are proton sponges.)

<SS - Science: Chemistry>

A meteorite lands in the New England town of Arkham in a short story by this author. For 10 points each:

[10e] Name this author who wrote about a life-sapping substance in “The Colour Out of Space.” This author wrote about “Great Old Ones” such as Hastur in his Cthulhu Mythos.

ANSWER: H. P. **Lovecraft**

[10m] Lovecraft is best known for his work in this subgenre of speculative fiction, which he described as “more than secret murder, bloody bones.” A Lovecraft essay contains “Notes on Writing” in this genre, whose “new” form is associated with Jeff VanderMeer.

ANSWER: **weird** fiction [accept **Weird** Tales or New **Weird**]

[10h] This author brought what would later be called New Weird fiction into the mainstream with a novel set in New Crobuzon. He also wrote the novella *The Last Days of New Paris*.

ANSWER: China (Tom) **Miéville** (The first novel is *Perdido Street Station*.)

<VA - Literature: American>

17. **A leader of this party declared “we are already old and do not matter” in response to protests chronicled by Maurice Meisner. This party praised the documentary *Under the Dome*, but rescinded a month later. By giving a reporter the testy response “too simple, sometimes naive,” a leader of this party spawned “toad worship” memes. A member of this party supposedly received “vacation-style treatment” after revealing Neil Heywood’s murder. This party received the “Letter of the (\*) Two Sorries.” A leader of this party argued that it should focus on “the interests of the overwhelming majority,” “advanced culture,” and “advanced productive forces.” This party’s “Fifth Generation” has sidelined its relatively populist “Youth League” faction. One of its leaders claimed not to care if a cat was “black or white” if it “catches mice.” A leader from its “Princeling” faction targeted “flies” and “tigers” for corruption and supposedly hates comparisons to Winnie the Pooh. For 10 points, name this party, whose constitution now mentions “Xi (“shee”) Jinping Thought.”**

ANSWER: **Chinese Communist Party** [or **Zhongguo Gongchandang**; accept **CCP** or **CPC**; accept any answer that mentions both “**communist**” and the correct country; prompt on partial answers]

<JG - History: World>

A subfield of spintronics named for these quasiparticles manipulates spin states via phenomena like Damon–Eshbach waves. For 10 points each:

[10h] Name these quasiparticles that are the quanta of spin waves. The Holstein–Primakoff transformation maps spin operators to creation and annihilation operators of these quasiparticles that behave like bosons.

ANSWER: **magnons** [accept **magnonics**]

[10m] Magnons were first proposed by this physicist to explain his eponymous law, in which magnetization depends on temperature to the three-halves power. This physicist names a set of three equations that give the time dependence of the magnetization as a function of relaxation times.

ANSWER: Felix **Bloch** [accept **Bloch**'s law or **Bloch** equations]

[10e] Magnonics and other spintronics don't require continuous input of energy to maintain spin states.

Conventional electronics, in contrast, require this continuous flow of charge, in either direct or alternating form, to maintain charge states.

ANSWER: **current** [accept alternating or direct **current**; prompt on **AC** or **DC**]

<JL - Science: Physics>

18. **One of these animals is depicted in a photograph titled for an “Imaginary” figure associated with them by an artist dubbed “the Norwegian Cindy Sherman,” Anja Niemi. Turner Prize-winner Mark Wallinger bought one of these animals and named it *A Real Work of Art* as a readymade sculpture. A photographer borrowed the title of an earlier photograph of this animal to name a re-photographing of a Gary Gross picture depicting ten-year-old Brooke Shields in a bathtub. That original photograph of one of these animals is (\*) *Spiritual America* by Alfred Stieglitz. A cigarette advertisement depicting one of these animals by Sam Abell was re-photographed by Richard Prince. The inventor of the zoopraxiscope created one of the first moving image sequences by capturing one of these animals named Sallie Gardner. That sequence by Edward Muybridge depicts this animal “in Motion.” For 10 points, name this animal that appears in the photo *Untitled (Cowboy)*.**

ANSWER: **horses**

<JM - Arts: Misc>

In this play, two women who ladled seawater into a brine cart on the beach become trapped on earth as ghosts after dying of grief. For 10 points each:

[10h] Name this play by Kan'ami, with revisions by Zeami, in which the title character and her sister are freed from their ghostly attachment to the mortal plane after mistaking a plant for their lost love Ariwara no Yukihira.

ANSWER: **Matsukaze** [accept, but DO NOT READ, **Wind in the Pines**]

[10e] *Matsukaze* is a play in this Japanese genre, whose actors wear masks unlike another classical genre featuring face-paint. Most plays in this genre deal with supernatural beings' interactions with the living.

ANSWER: **Noh** theater [or **Nōgaku**]

[10m] Matsukaze, whose name is a pun about this plant, mistook one of them for her lover. Zeami's *Takasago* is about two of these trees whose *kami* demonstrate fidelity by growing together, while a Chikamatsu play is titled for an *Uprooted* one.

ANSWER: **pine**s [or **pine** trees; or **Aioi**; prompt on **trees**]

<JM - Literature: World (Mythology)>

19. **The only native mammals on this archipelago, an endemic dwarf goat-antelope, giant dormouse, and shrew, were all exterminated by humans, though two endemic wall-lizards including Lilford's remain extant. The largest of these islands are sometimes called the "Gymnesian Islands" in contrast to the smaller "Pityusic" or "Pine Islands." Mayonnaise is thought to have originated in this archipelago's city of Maó, and these islands' cuisine also includes a lobster stew. The center of this archipelago's capital is home to one of the only circular castles in Europe, Bellver Castle. The (\*) Serra de Tramuntana range runs along the largest of these islands, whose northernmost point is the scenic Cap de Formentor. An EDM genre known as these islands' "Beat" became widespread in the 1990s because of the popularity of vacationing and clubbing on the island of Ibiza. For 10 points, name this Spanish archipelago in the Mediterranean, including the capital of Palma and the islands of Menorca and Mallorca ("mai-YOR-kuh").**

ANSWER: **Balearic** Islands [or *Illes Balears*; or *Islas Baleares*; accept the **Balearics**]

<JM - Geography>

An accidental recording of Hitler talking to this statesman, who staked irredentist claims in the Sword Scabbard Declarations, is the only known recording of Hitler talking while not giving a public speech. For 10 points each: [10m] Name this statesman, who issued the "Shoot on the Spot Declaration" about opponents he defeated at the Battle of Tampere ("TAHM-peh-reh"). He allied with Nazi Germany in a conflict known as the Continuation War.

ANSWER: (Baron) Carl Gustaf Emil **Mannerheim**

[10e] Mannerheim led Finland in the Winter War and also led the anti-Bolshevik faction known by this color in the Finnish Civil War. Opponents of the Bolsheviks in the Russian Civil War were also denoted by this color.

ANSWER: **Whites** [accept equivalents in other languages]

[10h] Mannerheim refused to join this far-right pro-German movement that revered him. This movement fell apart after failing to overthrow Finland's social democratic government in 1932's Mäntsälä ("MENT-seh-leh") rebellion.

ANSWER: **Lapua** Movement

<JM - History: European>

20. **Vogel et al.'s introduction of the fictitious parameter theta-sub-m to a model of a property of this substance improved the predictive capacity of the van Genuchten–Mualem model. It's not seawater, but the SMOS mission uses a Very Large Array-inspired setup to quantify one property of this substance. McBratney et al. proposed digitally mapping this substance using the "scorpan" model, which adds spatial position and, weirdly, this substance itself to an influential (\*) five-factor model for its formation. Lorenzo Richards first applied his namesake extension of Darcy's law to unsaturated examples of this substance. Excess compaction of this substance can reduce its infiltration capability. This substance, whose formation is modeled by Hans Jenny's CLORPT equation, can be divided into horizons like O and A, the latter of which contains humus. For 10 points, name this substance made up of minerals and decaying organic material that plants grow in.**

ANSWER: **soil** [or **earth**; prompt on **dirt**]

<AF - Science: Earth/Environmental>

This text, thought to be a historical repudiation of the ideology found in Ezra-Nehemiah, is held in esteem by some Jewish converts because its protagonist was a Moabite who became Jewish by marriage. For 10 points each:  
[10m] Name this text that is read on Shavuot. Many scholars interpret the protagonist's choice to sneak in and "uncover the feet" of another character as a sexual euphemism.

ANSWER: (*Megilath*/Book of) **Ruth**

[10e] Like Ruth on Shavuot, this text is read on Purim, which celebrates freedom from Achaemenid persecution under the vizier Haman after the title character's cousin Mordecai refused to bow down to him.

ANSWER: (*Megillat*/Book of) **Esther**

[10h] In the Ketuvim, Ruth and Esther are included among the "Five Megillot" or "Scrolls," short texts of unusual genre, along with Lamentations. Name *both* of the other two Megillot texts.

ANSWER: **Song of Songs** AND **Ecclesiastes** [accept in either order; accept the alternatives **Song of Solomon**, **Canticle of Canticles**, **Áisma āismátōn**, and **Šīr hašŠīrīm** for the first text, and **Qōhelet** for the second]

<JM - Religion>

21. In a paper on "Cognitive Science and" this thought experiment's "Problem," Jerry Fodor tries to reconcile it with empirical results about representations. This thought experiment names a "revived" version of G. E. Moore's open question argument that Terence Horgan and Mark Timmons leveled against "new wave" moral realism. A paper by Ned Block attacks intentionalism by imagining someone waking up wearing "color inverting lenses" in a variant of this thought experiment. This thought experiment appears alongside another in which the words "aluminum" and (\*) "molybdenum" have the same extension in the respective idiolects of Oscar1 and Oscar2, which its author developed to support semantic externalism. Introduced in "The Meaning of 'Meaning,'" this thought experiment illustrates that meaning "just ain't in the head" by imagining a place where "water" refers to XYZ, a substance qualitatively identical to H2O. For 10 points, give this thought experiment in which Hilary Putnam imagined a qualitative duplicate of Earth.

ANSWER: **Twin Earth** [accept "Moral **Twin Earth**," accept "**Inverted Earth**;" prompt on **Earth** before mention]

<CK - Thought: Philosophy>

A 4x4 magic square summing to 34 appears in a work by this artist that also features a peculiar polyhedron with two visible irregular pentagonal faces. For 10 points each:

[10e] Name this artist who created that etching, *Melancholia I*, for his *Meisterstiche* ("MEYST-ur-STISH-uh") or "master engravings," along with *Knight, Death and the Devil* and *Saint Jerome in His Study*.

ANSWER: Albrecht **Dürer** [or **Ajtósi** Adalbert ("eye-TOW-shee")]

[10m] This art historian wrote repeatedly about *Melancholia*, including in his biography *The Life and Art of Albrecht Dürer*. He is also known for his magisterial study of *Early Netherlandish Painting*.

ANSWER: Erwin **Panofsky**

[10h] In this other Dürer engraving, the title winged deity holds a bridle and the "cup of reward" while balancing atop a small sphere floating above a rural landscape.

ANSWER: **Nemesis** (*The Great Fortune*)

<JM - Arts: Painting and Sculpture>

22. A poem named for this person refers to “my *Cahier d’un retour au pays natal*,” and quotes, “Tidd the Cato Street conspirator who wrote: / Sir, I Ham a very Bad Hand at Righting.” That Tony Harrison poem is titled for “Not Being” this author, who names the meter in which “Poor Poll” and the poems in *The Testament of Beauty* were written. That “syllabic” meter was developed after a study of this author’s use of elision was penned by Robert (\*) Bridges. A skylark who turns into the girl Ololon looks for this writer in an epic poem in which he takes the form of a falling star to enter the poet’s foot. That epic titled for this writer opens with the line “And did those feet in ancient time,” which became the hymn “Jerusalem.” For 10 points, A. E. Housman’s “Terence This is Stupid Stuff” says that malt “does more” to “justify the ways of God to man” than what author of *Paradise Lost*?

ANSWER: John **Milton** [accept “On Not Being John **Milton**”] (The epic poem is *Milton* by William Blake.)

<CS - Literature: British>

Variations of this idea probably originate with a passage of the *Posterior Analytics* claiming “We may assume the superiority... of the demonstration which derives from fewer postulates or hypotheses.” For 10 points each:

[10e] Name this philosophical tool. Though it is today often misinterpreted to prioritize the “simplest explanation,” this heuristic for reasoning actually suggests that “entities should not be multiplied beyond necessity.”

ANSWER: **Ockham’s Razor** [or **principle of parsimony**, or **law of parsimony**; or **novacula Occami**, or **lex parsimoniae**]

[10m] That formulation does not in fact appear in Ockham’s work, though a similar phrase is found in his commentary on this influential scholastic’s *Sentences*, which became required reading for medieval theologians.

ANSWER: Peter/Pierre (the) **Lombard** [or *Petrus Lombardus*]

[10h] Ockham distinguished between these two types of cognition, which differ in whether they deliver knowledge of an object’s existence, or whether its existence has no bearing on the thought. Name both.

ANSWER: **intuitive** AND **abstractive** cognition [accept in either order]

<JM - Thought: Other Philosophy>