2016 MYSTERIUM: "I quiz all sounds, all thoughts, all everything"

Packet 3 – chausson

Questions by Yale (Jacob Reed, Stephen Eltinge, Laurence Li, Adam Fine, Isaac Kirk-Davidoff) and Maryland (Jordan Brownstein, Weijia Cheng, Ophir Lifshitz, Naveed Chowdhury, Ani Perumalla), with Sriram Pendyala

#### Tossups

1. This character recalls replying "so what?" to a woman who told him "I'm the glamorous type! I'm the glamorous type!" The sound of a train allows this man to silently enter his home in time to hear another character denounce him in a speech ending "don't hang back with the brutes!" This character reveals that a woman is lying about a telegram from a Texas oil millionaire before criticizing her for (\*) covering lights with paper lanterns. This character invokes the Napoleonic Code to claim he's been cheated by the sale of the Belle Reve ("reeve") estate. This man throws a radio out the window in the "Poker Night" scene. This resident of Elysian Fields bellows his wife's name after she takes refuge at Eunice's apartment. For 10 points, name this Polish husband of Stella who rapes Blanche Dubois in A Streetcar Named Desire.

ANSWER: **Stan**ley **Kowalski** [accept either name]

<JB American Literature>

2. The preface to J. D. Jackson's Classical Electrodynamics uses a "double relation" named for this man to place a bound on the mass of the photon. This scientist showed how a suspended iron rod rotates to oppose its own magnetization in an effect named for him and de Haas. This scientist tried unsuccessfully to use Riemannian quaternions to formulate a unified field theory. The relative rates of (\*) absorption, spontaneous emission, and stimulated emission are described by this man's A and B coefficients. The energy of a photon equals h times nu according to a formula named for Planck and this man, who published the paper "On the Electrodynamics of Moving Bodies" in September 1905. For 10 points, name this physicist who followed that paper up with one on mass-energy equivalence, thus completing his theory of special relativity.

ANSWER: Albert **Einstein** 

<SE Physics>

3. Description acceptable. A book on this subject begins by analyzing Lord Devlin's response to the Wolfenden report. A chapter focusing on this phenomenon claims that its increased labelling was a way for people to gain power over it through knowledge, leading to a "spiral." A historical form of this phenomenon was first analyzed in detail by Kenneth Dover. In a 2010 book, Martha Nussbaum argued that laws against this phenomenon originate from "disgust." This phenomenon was converted into a "species" in the 19th century, according to the second part of *The Will to* (\*) *Knowledge*. In a 1980 essay, this phenomenon's opposite was deemed "compulsory" by Adrienne Rich. Although he has since changed his mind, Roger Scruton called this phenomenon a "perversion," since it bespeaks disinterest in creating the next generation, in his book *Sexual Desire*. For 10 points, name this sexual orientation of Michel Foucault.

ANSWER: <u>homosexual</u>ity [accept any answer that might appear in a variation of the acronym <u>LGBTQ</u>; accept <u>sodomy</u>; prompt on more general answers like "sexual orientation" or "sexuality"; prompt on "perversion" until read because of the Foucault clues]

<JR Philosophy>

4. Three of these people named Matters, Tillard, and Fox chained themselves to an ironwork which blocked a gallery view in the "Grille Protest." The "freedom or death" speech was given by one of these people while visiting the United States. One of these people attacked H.H. Asquith with a hatchet, while another damaged a Velázquez painting with a meat cleaver. One of these people was (\*) trampled to death after running in front of the king's horse at the Epsom Derby. The chief organization of these people was the WSPU, whose members included Emily Davison, Mary Richardson, and Emmeline Pankhurst. For 10 points, identify these these British political activists who fought for a specific form of equal rights for women.

ANSWER: British <u>suffragists</u>s [or <u>suffragette</u>s; or <u>women's suffrage</u> activists; or obvious equivalent answers about activists for the right of <u>women</u> to <u>vote</u>; prompt on "women's rights activists" or "woman" or the like] <NC European/British History>

5. In this novel, a man amuses himself by imagining David Hume stuck in a bog before remembering how he used to wander the countryside with nothing but a biscuit in his pocket. A character in this novel announces his intention to find the lost brooch of his fiancée's grandmother at a dinner centered on a dish of BŒUF EN DAUBE ("buhf on dobe"). In this novel, a woman wraps her green shawl around a boar's skull to calm her children. Andrew is killed and (\*) Prue dies in childbirth in this novel's section "Time Passes," during which the central house falls into decay. In this novel, Charles Tansley annoys the painter Lily Briscoe, who stays with the main family in the Hebrides. For 10 points, name this novel which ends with the Ramsey family's visit to the title building, a work of Virginia Woolf.

ANSWER: *To the Lighthouse* <JB British Literature>

6. Yvonne Daniel described how spontaneous dancing in this country's black solares became choreographed government-run Saturday shows. This country's national ballet was founded by blind prima ballerina assoluta Alicia Alonso. Females avoid pelvis thrusts called vacunao in the guaguancó ("gwa-gwan-KOH") style of a polyrhythmic dance in this country inspired by Abakuá. The music groups Irakere, led by (\*) Chucho Valdés, and Bamboleo, are from this country. This country's capital names a dance with a 3-1-2-2 rhythm that evolved from the contradanza. In this country, violinist Enrique Jorrín ("hor-REEN") composed the first cha-cha-chá, a variant of the mambo. Son and rumba clave ("CLAH-vay") rhythms were used in this country's music and dances, blending African and European styles. For 10 points, name this country whose capital originated the habanera.

ANSWER: Republic of **Cuba** 

<OL Other Arts>

7. This kind of algorithm creates an Erdős–Rényi graph, which Fagin's zero-one law describes. One algorithm of this kind, in big O of k log cubed of n, halts if a to the n minus 1 isn't 1 mod n, which is called a witness. An algorithm of this kind can check a proof of any problem in NP by the PCP theorem. An algorithm of this kind in class BPP gives an exponentially decreasing Chernoff bound. Metropolis–Hastings, (\*) primality tests like Miller–Rabin, simulated annealing, and skip list insertion are algorithms of this kind. Because of how they pick the pivot to avoid the n squared worst case, most versions of quicksort are this kind of algorithm. Markov's inequality can turn algorithms of this kind that always succeed, called Las Vegas, into ones that always halt. For 10 points, a Monte Carlo algorithm is what kind of non-deterministic algorithm that may run on a probabilistic Turing machine?

ANSWER: <u>random</u>ized algorithm [or <u>probabilistic</u> algorithm until read; or <u>Monte Carlo</u> or <u>Las Vegas</u> until read; accept Markov chain <u>Monte Carlo</u>; accept <u>random</u> sampling; prompt on "non-deterministic algorithm" until read; anti-prompt for a "general kind of algorithm" on "primality test" or "checking if a number is prime," etc. until read] <OL Other Science>

8. When talking to Gangleri, High quotes two lines of a poem about this god, then laments that the rest of the poem has been lost. According to the Poetic Edda, this god's mother has the same name as the mother of Magni. This god's children, Thræll, Karl, and Jarl, fathered the classes of serfs, farmers, and warriors, respectively. At Singasteinn, this god won a wrestling match in the form of a (\*) seal, thereby recovering Brisingamen from Loki. This figure devises the plan to recover Mjollnir by having Thor dress up as Freyja. This god is said to be the son of nine mothers, visited the mortal world in the form of Rígr, and has golden teeth. He owns the golden-maned horse Gulltoppr, and can hear grass grow. His home lies at the intersection of Bifrost and Asgard. For 10 points, name son of Odin who lives at Himinbjorg, who will sound the Gjallarhorn to signal the onset of Ragnarok.

ANSWER: <u>Heimdall</u>r <AF Mythology/Other>

9. A poem in this language repeats images of broken stones and burnt pines and states "I woke with this marble head in my hands." A poem in this language tells a person who says "I'll go to another country, go to another shore" that the title place will "always pursue" you. A poem in this language parenthetically notes "How serious people's faces have become" and asks (\*) questions like "Why do the senators sit there without legislating?" A poet in this language wrote about people who were a "kind of solution" and a poem that advises a hero to "hope the voyage is a long one" and to bring Laestrygonians along "inside your soul." For 10 points, name this language used by Giorgos Seferis and the author of "Waiting for the Barbarians" and "Ithaka," Constantine Cavafy.

ANSWER: Modern <u>Greek</u> <JB European Literature>

10. The amateur genealogist Michael Hirsch discovered the previously unknown identities of six victims of this event. Over a hundred lives were saved by Gaspare Mortillaro's and Joseph Zito's actions during this event. In the years before this event took place, the Great Revolt and the Uprising of Twenty Thousand were instigated by the ILGWU. During the trial of Max Blanck and Isaac Harris that followed this event, Max Steuer (\*) discredited Kate Alterman as a witness by having her repeat her testimony three times. An investigator of this event described it as "The day the New Deal began"; that woman was Frances Perkins. This event turned deadly due to the policy of locking in workers to prevent them from taking breaks. For 10 points, name this 1911 disaster in a New York garment factory.

ANSWER: <u>Triangle Shirtwaist</u> Factory fire [accept equivalents for "fire," or any general "disaster," etc.] <WC American History>

11. The histone lysine-N-methyltransferase 2A gene is also named for a subtype of this disease, due to the fact that rearrangements of it are associated with aggressive varieties of this condition. The monosomy 7 cytogenetic abnormality is a poor prognostic indicator for a subtype of this disease, along with amplifications of the FLT3 gene. All-trans retinoic acid is used to treat one subtype of this disease. Adoptive therapy of CAR T-cells are an experimental immunotherapy for this condition. "Secondary" forms of this condition are caused by the radiation or chemotherapeutic treatment of other cancers. Although nowadays (\*) methotrexate and 6-MP are used in the consolidation and maintenance phases of treatment, Sidney Farber pioneered the first chemotherapy drug aminopterin for the treatment of this cancer. One subtype of this cancer is caused by a 9-22 translocation characterized by the fusion Bcr-Abl oncogene; that is treated with imatinib, brand name Gleevec. For 10 points, name this common cancer of the blood, which has lymphocytic and myelogenous forms.

ANSWER: <u>leukemia</u> [accept any subtype, such as <u>chronic myelogenous leukemia</u> (<u>CML</u>), <u>chronic lymphocytic leukemia</u> (<u>CLL</u>), <u>acute myelogenous leukemia</u> (<u>AML</u>), <u>acute lymphocytic leukemia</u> (<u>ALL</u>), or <u>hairy cell</u> <u>leukemia</u>, etc.; prompt on "cancer"]

<SP Biology>

12. The onset of this style marks the end of a two-volume history by Gunther Schuller. Early recordings in this style are rare due to a two-year "recording ban" stemming from a musicians' strike. An early recording in this style was the track "Woody'n You," organized by Budd Johnson, who helped create this style with Earl Hines. This style's characteristic rhythm was developed by guitarist Charlie Christian. Musicians in this style pioneered the use of (\*) contrafacts, or new tunes over famous chord progressions. This style was foreshadowed in a recording of "Body and Soul" by Coleman Hawkins. It was solidified by performances with Max Roach and Bud Powell at Massey Hall, including standards like "Salt Peanuts" and "A Night In Tunisia." This style was intended to be "undanceable," with intricate rhythms and extremely fast, fragmented virtuoso improvisation. For 10 points, name this jazz style pioneered by Dizzy Gillespie and Charlie Parker.

ANSWER: be**bop** [accept any other kind of **bop**; prompt on "modern jazz"; do **not** accept "post-bop"] <JR Auditory Arts>

13. A major scholar of this era and director of the Courtauld Institute for thirty years was revealed to be an ex-Soviet spy by Margaret Thatcher. The study of patronage in painting was kick-started by a book about this era by Francis Haskell. This era, which was studied by Anthony Blunt, was largely rehabilitated by Heinrich Wölfflin, whose *Principles of Art History* narrates its development as a move to "painterly" style and "relative clarity." This term was originally derisive, coming from a term for a (\*) misshapen pearl. Opera originated in this era. In music and architecture, this style was characterized by a profusion of ornaments. It is often linked to the artistic "populism" of the Counter-Reformation, exemplified by "grand" history paintings. This style was pioneered by Bernini and Caravaggio. For 10 points, give this general term for art of the 17th century.

ANSWER: Baroque

<JR Social Science/Thought>

14. The originator of this doctrine was forced to resign after police incited rioters to stone an airline office after a victory at a world hockey championship. *The Literary Pages* gathered 20,000 signatures in favor of this doctrine prior to a summit at a train station in Čierna nad Tisou ("CHAIR-na nod tee-SOH"). The principles of this ideology were introduced in a speech on the "Victorious February" celebration of Klement Gottwald's coup. The effects of this ideology were (\*) erased during the "normalization" period. This ideology was implemented with the Action Program and allowed the publication of Ludvík Vaculík's ("vaht-soo-LEEK's") radical "2,000 Word Manifesto." Gustáv Husák reversed the effects of this doctrine after an invasion later justified by the Brezhnev Doctrine. For 10 points, name this liberalizing ideology promoted by Alexander Dubček ("DOOB-check") during the 1968 Prague Spring.

ANSWER: "Socialism with a Human Face" [prompt on "Action Program" or "Prague Spring" until read] <JB European/Ancient History>

15. This character is hit with a large rock by a man from whom he receives a purple sash in exchange for a silver-studded sword. This man ignores a warning to retreat after seeing an eagle drop the living snake which it was carrying. A child is frightened by the plumed helmet worn by this man, who then takes it off to hug the boy. This character's attempt to make a deal about the treatment of bodies is met with the reply "There can be no covenants between men and lions." Athena (\*) calls to this man in the form of Deiphobus to stop him after he flees around the city walls three times. Priam begs for this hero's body after it is dragged behind a chariot as revenge for his killing of Patroclus. For 10 points, name this rival of Achilles and brother of Paris, Troy's greatest champion in the *Iliad*.

ANSWER: <u>Hector</u> <JB Other Literature>

- 16. In one reaction of this type, aldoses are treated with hydroxylamine, followed by reaction with acetic anhydride and then sodium methoxide in methanol solvent. In another reaction of this type, alcohols are reacted with carbon disulfide and methyl iodide under basic conditions to form a xanthate intermediate, which then undergoes a Cope-type rearrangement. That transformation is named for Chugaev. The last mechanistic step of the Suzuki coupling is a reduction reaction of this type. When this reaction is concerted and (\*) biomolecular, the relevant substituent must be in an antiperiplanar relationship with a hydrogen atom. Bases with low nucleophilicity, like potassium tert-butoxide, favor reactions of this type. These processes are also favored at high temperatures due to their large positive changes in entropy. These reactions often compete with substitution reactions. For 10 points, name these organic reactions in which substituents are removed from a molecule.

  ANSWER: elimination reactions [accept degradation reactions until "carbon disulfide" is read]

  <SP Chemistry>
- 17. According to one text, this religion's founder was originally named Corbicius and became a magician after inheriting the four books of Scythianus; that text was the *Acta Achelai*. Another text about this religion's founder describes how he was introduced to the Elkhasaite baptist sect; that is the "Cologne Codex." While standing in his garden, a man who heard a child's voice say (\*) "take up and read" abandoned this religion for Christianity, as recounted in his *Confessions*. Vegetarianism and abstinence were not commandments for this religion's "hearers," but they were for its elite "elects." It was founded a namesake "Apostle of Light" born during the third century in Persia. For 10 points, name this Gnostic religion once followed by Saint Augustine, which emphasized the struggle between light and darkness.

ANSWER: <u>Manichaeism</u> [accept word forms like <u>Manichaean</u>] <WC Religion>

18. Following the death of Wǔdì, this number of princes from the Sīmǎ family rebelled against the Western Jīn dynasty. During the Míng dynasty, a type of essay named after this number of sections became standard in the kējǔ ("kuh-joo") imperial examination system. During the reign of the Jiāqìng ("jyah-ching") Emperor, an offshoot of the White Lotus secret society named after this number of trigrams in the *I Ching* attacked the Forbidden City. (\*) Nurhachi organized his Manchu followers into this number of banners. An alliance with this number of nations relieved the siege of the Legation Quarter during the Boxer Rebellion. For 10 points, name the century in which the Sogdian general Ān Lùshān revolted against the Táng dynasty, the century after the one in which that dynasty was founded.

ANSWER: <u>eight</u> [or <u>bā</u>; accept <u>eighth</u> century AD or CE] <WC World History>

19. Several of this artist's paintings were more or less copied by Ingres ("ANG") in his *Vow of Louis XIII*. Many Germans only visited the Dresden art gallery to view a painting by this artist. This artist's early works were the main model for the Nazarenes. This artist copied the temple in the background and the man with a two-tufted beard from his teacher for his own version of the *Sposalizio*. One of his paintings includes Saint Barbara looking down at two bored-looking boy angels. This teacher of (\*) Giulio Romano adopted the triangular composition of Leonardo da Vinci in many paintings. Throughout the eighteenth and nineteenth centuries, basic training for academic styles consisted of copying this man's paintings, a restriction opposed by artists like William Holman Hunt. For 10 points, name this artist whose influence was opposed by a namesake nineteenth-century English "brotherhood" including painters like Millais and Rossetti.

ANSWER: <u>Raphael</u> [or <u>Raffaello</u> <u>Sanzio</u> d'Urbino (accept either)] <JR Visual Arts> 20. This phenomenon has been explained by a market failure that was explored in several papers and a 1986 book by George Akerlof and his wife Janet Yellen. It is the main economic phenomenon hypothesized to undergo hysteresis. This phenomenon is modelled by "contracting" and "search and matching" theories. This phenomenon arises from companies meeting the "no-shirking" condition, according the Shapiro-Stiglitz model, in which it can be explained by efficiency wages. This phenomenon only arises in a non-Walrasian (\*) labor market. This phenomenon is inversely related to GDP growth by Okun's law. A baseline for it called NAIRU elaborated on Milton Friedman's idea of a "natural" value for it. The Beveridge curve models its "frictional" type. It is inversely related to inflation by the Phillips curve. For 10 points, name this quantity that models people looking for work.

ANSWER: <u>unemployment</u> [accept <u>unemployment rate</u>]

<JR Economics/Psychology>

- 1. According to al-Umari, the central participant of this event did not want to meet with the Mamluk sultan al-Malik al-Nasir because he would be obligated to kiss the ground and the sultan's hand. For 10 points each:
- [10] Name this event, during which a ruler of the Mali Empire devastated the economy of Cairo for twelve years through his generosity by giving out and spending a massive amount of gold.

ANSWER: Mansa <u>Musa</u>'s <u>hajj</u> [or Mansa <u>Musa</u>'s <u>pilgrimage</u> to <u>Mecca</u>, or anything indicating Mansa <u>Musa</u> <u>going to Mecca</u>; prompt on partial answers]

[10] During Mansa Musa's hajj, his general Sagmandia expanded the Mali Empire by conquering this city to the southeast, which was the capital of the Songhai Empire.

ANSWER: Gao

[10] Mansa Musa brought back with him this architect from Granada, who he commissioned to design the Sankore Mosque, around which the University of Sankore developed.

ANSWER: Abu Ishaq as-Sahili [or Abu Ishaq al-Sahili]

<WC World History>

- 2. In the second half of the nineteenth century, this painter finally became famous, but for somewhat conventional landscapes like *A Dream in the Appenine*. For 10 points:
- [10] Name this "visionary" English painter, best-known for a series of landscapes depicting Shoreham, including the explosively floral *Garden in Shoreham*.

ANSWER: Samuel Palmer

- [10] Palmer was one of many painters captivated by the idiosyncratic style of *this* pre-Romantic painter of *Newton*. He also made illustrations like "The Tyger" for his own collection of poems, *Songs of Innocence and of Experience*. ANSWER: William **Blake**
- [10] The "brotherhood" of admirers of Blake took *this* name. One of Blake's most famous illustrations is titled for a noun form of this adjective, and depicts Urizen crouching on a bright circle, holding a compass below dark clouds.

ANSWER: The **Ancient**s [accept The **Ancient of Days**]

<JR Visual Arts>

- 3. The protagonist of this story tries to strike up a conversation with a well-dressed man by asking him for matches but then sees a "NO SMOKING" sign. For 10 points each:
- [10] Name this story in which Julian's mother dies of a stroke on the way to the YMCA after insultingly offering a penny to a black child.

ANSWER: "Everything That Rises Must Converge"

[10] "Everything That Rises Must Converge" is the second short story collection by this author of Southern Gothic stories like "A Good Man is Hard to Find."

ANSWER: (Mary) Flannery **O'Connor** 

[10] In this story from the same collection, the atheist Sheppard attempts to reform the clubfooted juvenile delinquent Rufus Johnson, whom he thinks is much smarter than his own son Norton.

ANSWER: "The Lame Shall Enter First"

<JB Other Literature>

- 4. This technique is used to identify protein-binding DNA motifs. For 10 points each:
- [10] Name this technique, which uses formaldehyde to cross-link proteins to DNA, then shears DNA into small fragments and enriches protein-DNA complexes of interest. Then the bound DNA is purified and undergoes high-throughput sequencing.

ANSWER: <u>ChIP-sequencing</u> [accept <u>chromatin immunoprecipitation-sequencing</u>; prompt on partial answers] [10] ChIP-seq has led to the discovery of many different DNA sequences which bind proteins in the promoter

regions of genes. This 4-nucleotide sequence in eukaryotes appears between the minus 35 and minus 25 positions in promoters, but was known well before ChIP-seq.

ANSWER: <u>TATA</u>-box [accept <u>Goldberg-Hogness</u> box]

[10] Promoters of genes bind RNA-polymerase, which performs this process of copying a gene's genetic instructions to RNA. This process occurs before translation.

ANSWER: transcription

<SP Biology>

- 5. Answer some questions about Gestalt psychology, for 10 points each.
- [10] Many early Gestalt experiments involved *these* phenomena, in which our brain is "tricked" while processing an image. For instance, in the "phi" one of these phenomena, a series of still pictures looks like a continuous motion.

ANSWER: **optical illusion**s [prompt on partial answers]

[10] The phi phenomenon was studied by this granddaddy of Gestalt psychology, who founded it along with Kurt Koffka and Wolfgang Köhler.

ANSWER: Max Wertheimer

[10] In an experiment on Tenerife, Wolfgang Köhler noted that, given *these* two names, people strongly associate one with a jagged shape and one with a rounded shape. Give both names.

ANSWER: takete AND baluba [or kiki AND bouba; accept takete AND maluma]

<JR Economics/Psychology>

- 6. Mice are a staple food and mutated humans called Degenerators are used as beasts of burden in *Slynx*, a novel from this country. For 10 points each:
- [10] Name this country whose contemporary novelists include Vladimir Sorokin, Victor Pelevin, and Tatyana Tolstaya, who is the great-grandniece of a man from this country who wrote *War and Peace*.

ANSWER: Russia

[10] In a Vladimir Sorokin trilogy, sledgehammers containing this substance are used to make human hearts speak. In the first sentence of *One Hundred Years of Solitude*, Aureliano remembers the first appearance of this substance in Macondo.

ANSWER: ice

[10] The title character of Victor Pelevin's novel *Omon Ra* is tricked into thinking he has performed this action. In the first story of Calvino's *Cosmicomics*, Qfwfq and friends use a ladder to perform this action in order to retrieve milk

ANSWER: going to the **moon** [accept equivalents; prompt on answers like "leaving earth" or "space travel"] <JB European Literature>

- 7. This war included a spectacular defeat for Frederick the Great at Kunersdorf. For 10 points each:
- [10] Name this biggest of the eighteenth-century "world wars," which ended with the 1763 Treaty of Paris. It grew out of the French and Indian War, which actually lasted nine years.

ANSWER: Seven Years' War

[10] One of Britain's most embarrassing defeats in the war was the loss of *this* place due to the incompetent admiral John Byng. This place was finally lost in the Siege of Fort St. Philip.

ANSWER: Minorca

[10] Before the war, a Diplomatic Revolution took place, in which Britain became allies with *this* Continental power.

ANSWER: **Prussia** [or **Preußen**]

<JR European/Ancient History>

- 8. The yellow-orange complex hexa-ammine cobalt(III) adopts an octahedral geometry, where the t-2g and e-g orbital sets are composed of these orbitals. For 10 points each:
- [10] Name these atomic orbitals that come in xy, yz, xz, x-squared minus y-squared, and z-squared forms. The main-block transition metals consecutively fill this subshell in the 3rd, 4th, and 5th shells, respectively.

ANSWER: d orbitals

[10] Octahedral compounds with six of the same, achiral ligand fall into the O-h one of *these* mathematical objects. These sets of orthogonal matrices are used to classify the symmetries of molecules.

ANSWER: point groups

[10] Octahedral complexes that have three of one monodentate achiral ligand and three of another can adopt *these* two diastereomeric conformations. Name both.

ANSWER: facial and meridional

<SP Chemistry>

- 9. You've converted to Judaism—*mazel tov*! Answer some questions about stuff you now have to wear while praying, for 10 points each.
- [10] You should definitely wear a *kippah* ("kee-PAH") or yarmulke ("YAH-muh-kuh"), which covers *this* part of your body.

ANSWER: the top of your **head** [do **not** accept "face"]

[10] According to the third paragraph of the *Shema*, you should wear *tzitzit* ("tseet-SEET"), the fringes on *these* Jewish prayer shawls.

ANSWER: *tallit* [or *tallitot*; or *tallis*]

[10] If it's not Shabbat, you should wear *these* black leather boxes, which contain bits of the Torah. The strap for these items is usually wound on the hand in the shape of a Hebrew letter.

ANSWER: *tefillin* [accept phylacteries]

<JR Religion>

- 10. In this movie, Majid suddenly slits his own throat in front of the protagonist, his foster-brother. For 10 points each:
- [10] Name this Michael Haneke movie in which Daniel Auteuil ("oh-TOY") and Juliette Binoche play a couple who suddenly start to receive anonymous videotapes of their family.

ANSWER: Caché [accept Hidden]

[10] Haneke won Best Foreign Film and the Palme d'Or for a 2012 movie titled for *this* word, in French. A 1957 romantic comedy starring Audrey Hepburn is titled [*This Emotion*] in the Afternoon.

ANSWER: **love** [or **Amour**]

[10] Haneke used this color for most of George's apartment decorations in *Caché*, and won his first Palme d'Or for a movie titled for *this* color of ribbon. This color also titles the second movie in Kieślowski's ("kyeh-SHLOF-ski's") *Three Colors* Trilogy.

ANSWER: white < JR Other Arts>

- 11. This organization's leader, Charles Maurras ("more-OSS"), denounced immigrants and foreigners as "metics," a term he borrowed from Ancient Greece. For 10 points each:
- [10] Name this far-right monarchist organization active in France in the 1930s, whose youth wing was called the Camelots du Roi.

ANSWER: L'<u>Action française</u> [or <u>French Action</u>]

[10] Action française particularly hated Léon Blum, both for being a Jew and for leading this alliance of radicals, socialists, and communists. This alliance governed France following the 1936 election.

ANSWER: Front populaire [or Popular Front]

[10] Action française supported the government of this Marshal of France, who ruled the country following its defeat by Germany. His government was based at Vichy.

ANSWER: Philippe **Pétain** 

<NC European/British History>

- 12. A poem named for this thing claims it is "wider than the sky" and "just the weight of God." For 10 points each:
- [10] Name this place where a "plank of Reason" breaks after "mourners to and fro / kept treading" in it.

ANSWER: Emily Dickinson's **brain** [or "I felt a Funeral, in my **brain**"; prompt on synonyms like "mind" or "head"]

[10] Emily Dickinson's brain is also described in a poem entitled "They shut me up in [this thing]." Another of her poems notes that Possibility makes a "better house than" this kind of writing, which is contrasted with verse.

ANSWER: prose

[10] "I felt a Funeral in my brain" ends with a dash, much like this other poem of hers, which describes "The Stillness in the Room" and ends "And then the Windows failed – and then I could not see to see."

ANSWER: "I heard a Fly buzz – when I died –" [or Poem 465; or Poem 591]

<JB American Literature>

- 13. This anthropologist attacked Western scholarship on non-Western peoples in *How "Natives" Think*. For 10 points each:
- [10] Name this author of *Culture and Practical Reasons*, whose works on historical anthropology include *Islands of History*.

ANSWER: Marshall (David) Sahlins

[10] Sahlins' best-known works, including *How "Natives" Think* and *Islands of History*, were based on his work with *this* broad set of peoples who inhabit a namesake "triangle" in the Pacific.

#### ANSWER: **Polynesian**s

[10] Both *How "Natives" Think* and *Islands of History* examine the effects of *this* British explorer who supposedly discovered Hawaii and Australia.

ANSWER: Captain James Cook

<JR Social Science/Thought>

- 14. Just what is a Clebsch–Gordan coefficient? Let's find out, for 10 points each.
- [10] Quizbowl will gladly tell you that Clebsch–Gordan coefficients are used to add quantum representations of this quantity. In classical mechanics, it is equal to  $r \cos p$ , and its time derivative is torque.

### ANSWER: angular momentum

[10] Clebsch–Gordan coefficients transform between angular momentum representations of this Lie ("lee") group. It is equivalent to two copies of SO(3), and it is combined with U(1) to give the electroweak gauge group.

ANSWER: <u>SU(2)</u> [or <u>special unitary</u> group of degree <u>2</u>; accept answers like <u>SU2(C)</u> that also mention "C" or the "complex numbers"]

[10] If you combine two particles with total angular momentum J of 1 and 3, respectively, what values are possible for the total angular momentum of the combined system?

ANSWER: J = 2, 3, and 4 [accept in any order; do not accept answers that omit any numbers or include any extras] (all integers between 3 - 1 and 3 + 1, inclusive)

<SE Physics>

- 15. John Mason instigated this event, and he recruited the help of the Narragansett and Niantic Native American tribes to execute it. For 10 points each:
- [10] Name this 1637 destruction of a village, which the sachem Sassacus escaped, only to later be killed during the Fairfield Swamp Fight.

## ANSWER: Mystic Massacre

[10] The Mystic Massacre occurred during this 1636 to 1638 war, which was fought between New England Colonists and the namesake tribe. King Phillip's war occurred forty years after this war.

### ANSWER: **Pequot** War

[10] One of the colonies that fought the Pequot War was this colony. Settlers first arrived to this colony aboard the *Mayflower* and signed a compact in 1620.

ANSWER: **Plymouth** Colony

<LL American History>

- 16. Meditate on Descartes' *Meditations*, for 10 points each.
- [10] In a defense of the *Meditations*, Descartes put forth *this* argument for why he could not doubt his own existence. This statement reappears in the *Discourse on Method*.

ANSWER: "I think, therefore I am" [or "cogito ergo sum"; or "je pense, donc je suis"]

[10] In the *Meditations*, perceptions must have two properties to be certain—name *either*. These properties are contrasted with being "confused" and "obscure."

ANSWER: <u>clear</u> OR <u>distinct</u> [accept close equivalents like "<u>clarity</u>" and "<u>distinctness</u>"]

[10] One of the major critics of the *Meditations* was *this* other French philosopher, who is best known for promoting a Christian version of Epicurean atomism.

ANSWER: Pierre **Gassendi** ("gas-on-DEE")

<JR Philosophy>

- 17. In Graham Greene's *The Ministry of Fear*, Arthur Rowe is given a cake containing some secret film just before his house is destroyed in this event. For 10 points each:
- [10] Identify this historical event. The Pevensie children are evacuated from the city to escape this event in

C. S. Lewis's *The Lion, the Witch, and the Wardrobe*. Description acceptable.

ANSWER: the <u>Blitz</u> [or German <u>bomb</u>ing of <u>London</u> during World War II; or <u>air raid</u>s on <u>London</u>; prompt on "bombing of England," "Battle of Britain," "World War II," or similar]

[10] In this Graham Greene short story, the only house in a neighborhood not damaged by the Blitz is demolished by the teenage "Wormsley Common gang."

ANSWER: "The **Destructors**"

[10] In this novel by Greene, Sarah Miles promises God that she will stop committing adultery with Maurice Bendrix if Maurice revives after apparently dying during a Blitz bombing.

ANSWER: The **End of the Affair** 

<JB British Literature>

- 18. Joseph Kerman wrote an influential book on this composer's string quartets. For 10 points each:
- [10] Name this composer whose piano music includes the C minor *Pathétique* sonata and the bagatelle "Für Elise." ANSWER: Ludwig van **Beethoven**
- [10] Beethoven's variations on "I am the tailor, Kakadu" were written for this ensemble, as were the three pieces of his Opus 1. A Beethoven piece for this ensemble in D major is nicknamed for its "ghostly" second movement.

ANSWER: piano trio [or piano, violin, and cello in any order; prompt on "trio"]

[10] Peter Sculthorpe's *Kakadu* is based on this country's indigenous music. Another composer originally from this country made popular arrangements of "Country Gardens" and "Irish Tune from County Derry."

ANSWER: <u>Australia</u> (The composer is Percy Grainger.)

<OL Auditory Arts>

- 19. This condition is often concurrent with obesity. For 10 points each:
- [10] Name this condition, in which a quantity expressed by systolic and diastolic measurements is too high. It is a major risk factor for coronary artery disease and peripheral vascular disease.

# ANSWER: **high blood pressure** [or **hypertension**]

[10] Hypertension is often treated by giving these drugs that block a namesake type of catecholamine receptor, leading to smooth muscle dilation. Propranolol is one of the most widely-prescribed examples of these drugs.

ANSWER: <u>beta-blocker</u>s [accept <u>beta-adrenergic</u> blockers or <u>beta-adrenergic</u> antagonists]

[10] Nifedipine is another antihypertensive agent that acts by blocking these transmembrane proteins, leading to a dilation of smooth muscle and also a decrease in the release of catecholamines from the adrenal medulla.

ANSWER: voltage-dependent <u>calcium channel</u>s [accept voltage-dependent <u>Ca</u>2+ <u>channel</u>s; prompt on "ion channel" or "channel"]

<SP Other Science>

- 20. Much of this country is covered by the incredibly salty Garabogazköl and the Karakum Desert. For 10 points each:
- [10] Name this Central Asian country between Iran and Uzbekistan. Its president, Gurbanguly Berdimuhamedow, is slowly transitioning it away from the crazy totalitarian policies of Saparmurat Niyazov.

## ANSWER: Turkmenistan

[10] Turkmenistan's economy is mainly driven by natural gas harvested at *this* field, which is the world's second-largest.

# ANSWER: Galkynysh gas field [accept Yolotan gas field]

[10] Turkmenistan is situated to the east of *this* "sea," which is actually the largest lake in the world. This body of water separates the Caucasus from the rest of Asia.

ANSWER: <u>Caspian</u> Sea <JR Mythology/Other>