

Early Fall Tournament 2016 - "Auntie Vivian's daughter can answer these questions, why can't you?"

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Packet 1

TOSSUPS

1. This state required its mental health professionals to warn individuals threatened by their patients after graduate student Prosenjit Poddar murdered Tatiana Tarasoff. The Supreme Court upheld the ordering of warrantless blood tests in the case *Schmerber v. this state*. A case originating in this state modified the obscenity standard set by *Memoirs v. Massachusetts* with the three-pronged Miller test. Justice Harlan wrote a majority opinion in a case in which Paul (*) Cohen was arrested here for wearing a jacket reading "Fuck the Draft." A medical school in this state was forced to abandon its racial quota system by the decision of *Regents v. Bakke*. For 10 points, name this state where Executive Order 9066 caused Fred Korematsu and many other Japanese-Americans to be interned.

ANSWER: California <AmHist, RY>

2. A character in this novel says the greatest man he ever met was a seven-foot tall socialist leader who earned a nickname for appearing in half the country's Kodak advertisements. A character in this novel prizes a lapis lazuli-encrusted spittoon that hits him in the head and gives him amnesia. This novel's protagonist recalls how a sneeze saved a man from being killed on the orders of Brigadier (*) Dyer. In this novel, a British man sells six villas for cheap prices; that man, William Methwold, seduces the wife of the accordionist Wee Willie Winkie. In this novel, Padma listens to the story recounted by a man who gains telepathy from his large nose. For 10 points, name this novel in which Saleem Sinai is among 1,001 children born within the hour of India's independence, written by Salman Rushdie.

ANSWER: Midnight's Children <OLit, RY>

3. This composer's Symphony No. 1 links its third and fourth movements with a crescendoing snare drum roll, and begins its first movement with a short passage for a muted solo trumpet. One of this composer's string quartets comprises five movements, the first and last marked *Largo*, and all five are played without a pause in between. That piece is this composer's String Quartet No. 8 in C minor, which uses a recurring (*) "D, E-flat, C, B" motif also found in his E minor Symphony No. 10. This composer used a very conservative style to write his Symphony No. 5 in D minor as a response to the denunciation of his opera *Lady Macbeth of the Mtsensk District* by Soviet authorities. For 10 points, name this composer of the *Leningrad* Symphony.

ANSWER: Dmitri Shostakovich [or Dmitri Dmitriyevich Shostakovich] <Music, EK>

4. This process is described by the equation [read slowly] " $d\phi/dt$ plus the divergence of v times ϕ equals zero," where v is the velocity and ϕ is a scalar. The flux resulting from this process is equal to the product of a transport coefficient and the difference between the surface and the free-stream concentration. When there are no net sources or sinks, the continuity equation for mass transfer has two terms corresponding to (*) diffusion and to this process. Whether this process is driven by buoyant forces or an external flow determines whether it is "natural" or "forced." This process leads to mixing of material in the mantle. For 10 points, name this form of heat transfer that occurs via liquids or gases, as contrasted with radiation or conduction.

ANSWER: convection [accept advection] <Phys, BB>

5. A week after publication, this book's author wrote an article asking "Who is the Author of [this book]?" in response to criticism like that of Johan Heiberg. This book argues that Don Juan avoided sleeping with the same woman twice to avoid the diminished pleasure due to repetition. This book presents essays on tragedy and "shadowgraphs" before a club of dead men who write posthumous papers. This book, which is continued in its author's (*) *Stages on Life's Way*, claims it is sourced from writings found by a hermit in a desk drawer. Its second section draws on the memoirs of Judge Wilhelm. This book claims to be by "Victor Eremita" and contains the "Seducer's Diary" of Johannes Climacus. For 10 points, name this book whose title contrasts aesthetic and ethical living, a book by Soren Kierkegaard.
ANSWER: Either/Or [or Enter/Eller] <Phil, WA>

6. The bootstrap method was devised as an improvement to the jackknife method for estimating this quantity for a sample. Bartlett's test may be used to determine if a number of samples are from populations with equal values of this quantity, a condition known as homoscedasticity. For the geometric distribution, this quantity is equal to [read slowly] "one minus p over p squared." If a continuous distribution lacks an (*) expected value, then it also lacks a value for this quantity; that is because this quantity is defined as the square of the expected value minus the expected value squared. This quantity, which is the second moment of a distribution, is equal to the square of the standard deviation. For 10 points, name this quantity that measures the amount of spread in a data sample.
ANSWER: variance [prompt on homoscedasticity until read] <OSci, RH>

7. The two main administrative divisions of this empire were "great houses" and "city-states," the latter of which were administered by "great speakers" who served as both priest and governor. This empire extracted most of its tribute in the form of beads and blankets and was built around an alliance of three major cities. The Stone of Tizoc was created by people in this empire, which achieved huge (*) agricultural output by building artificial islands on swamps to create so-called "floating gardens" or *chinampas*. Warriors in this empire, like those of the eagle and jaguar orders, were promoted based on how many captives they took during "flower wars" conducted to gather human sacrifices. For 10 points, name this empire ruled by Moctezuma I from Tenochtitlan.
ANSWER: Aztec empire <WorldHist, WA>

8. A musical by this composer begins with an ominous organ solo that is cut off by the shrill sound of a whistle. In another of this composer's musicals, the protagonist begs "Somebody, hold me too close" and "Somebody, hurt me too deep" after seeing multiple scenes of his friends' dysfunctional married lives on his thirty-fifth birthday party. In one of his songs, Desirée moans "Isn't it (*) rich? Are we a pair? Me here at last on the ground and you in midair." This composer wrote a musical in which the baker Mrs. Lovett wonders whether priests or poets would taste better in her cannibalistic pies in a conversation with the title serial killing barber. He included "Send in the Clowns" in his musical *A Little Night Music*. For 10 points, name this composer of *Company* and *Sweeney Todd*.
ANSWER: Stephen Sondheim [or Stephen Joshua Sondheim] <OArts, EK>

9. In one tradition, this observance involves people making dolls of a woman with no ears or mouth, whose seven feet are broken off one-by-one; they also make a special flatbread called lagana. Part of this period sees statues and crosses covered up with purple veils. Clean Monday is the beginning of the Orthodox "Great" version of this observance, which in Latin is called (*) Quadragesima. The day before this period's beginning often involves eating pancakes. On this period's first day, a priest says "dust you are, and to dust you will return" while drawing crosses of ash on its observers' foreheads. This period includes Passiontide and Holy Week, and it comes immediately after Carnival. For 10 points, name this forty-day long Christian season of fasting before Easter.
ANSWER: Lent [accept Great Lent; accept Quadragesima until it is read; accept Clean Monday or Kathara Deftera on the first sentence] <Rel, RY>

10. At a “supper” for these characters, a man brags that a girl who draws life from hyacinths is actually his daughter, before he’s convinced to hang himself. At the start of the play those characters are in, one of *these beings* is asked for a drink of water by a student sitting by the wheelchair-bound Jacob Hummel. In a play titled for these beings, a mother, who raises a sexually deviant painter, flees her womanizing husband; she then takes refuge with a preacher who is accused of (*) burning an uninsured building funded by the will of the deceased Captain – an orphanage. Arkenholz wanders around an apartment in a Strindberg play titled for these beings, who title a play in which the syphilitic Oswald is cared for by Helen Alving. For 10 points, Henrik Ibsen wrote a play titled for what spectral beings?

ANSWER: ghosts [or Revenants; or Gengangere; accept *The Ghost Sonata*; prompt on less specific answers like undead or spirits; prompt on characters from the dream world or equivalents] <EuroLit, WA>

11. The oxo process adds one of these functional groups to a double bond. Because pyridinium chlorochromate is milder than the Jones reagent, it will always produce one of these functional groups when reacting with an alcohol. A common method for protecting this group forms a cyclic acetal [ah-seh-TALL] upon reaction with ethylene glycol. Reaction of one of these functional groups with a (*) triphenyl phosphonium ylide [ILL-lid] forms an alkene in the Wittig reaction. The slightly positive carbon found in this functional group makes an excellent target for nucleophilic attack and is the typical target of Grignard [GRIN-yurd] reagents, which form alcohols from these functional groups. For 10 points, name this functional group present in aldehydes and ketones, which consists of a carbon double bonded to an oxygen.

ANSWER: carbonyls [accept aldehydes or ketones before mention] <Chem, AW>

12. Tom Vilsack announced steps towards lightening this policy in March 2016, arguing that doing so would massively benefit U.S. agriculture. This policy was strengthened after cargo planes owned by Brothers to the Rescue were shot down, leading to the Helms–Burton Act. A major opponent of ending this policy is a Senator who was investigated for soliciting underage prostitutes, and who serves New Jersey. At Nelson Mandela’s funeral, the leader of the country (*) targeted by this policy controversially shook Barack Obama’s hand. This policy was established by John F. Kennedy in retaliation for nationalizing of oil refineries. Obama called for its end in June 2015, to the protestations of politicians such as Marco Rubio. For 10 points, identify this policy that bans American imports and exports to an island ruled by the Castros.

ANSWER: (United States) embargo against Cuba [accept clear equivalents, such as sanctions against Cuba] <Other, WA>

13. A leader of this party sang the song “Waiting at the church” at a meeting with supporters to signal that he would not call for elections that year; that leader of this party is the only politician from his country to have served in all four of the Great Offices of State. This party won an election after an opponent claimed that it would have to use “some form of Gestapo” to implement its policies. A member of this party was criticized by the headline “Crisis? What Crisis?” during the (*) Winter of Discontent. This party, whose members included Aneurin Bevan, lost power after the publication of the Zinoviev Letter while led by Ramsay MacDonald. It created the National Health Service during the administration of Clement Attlee. For 10 points, name this political rival of the Conservative Party.

ANSWER: Labour party <Brit/ClassHist, JZ>

14. A character from a play set in this city spends nine years yelling for his ham after a butcher reneges on a deal and offers him chicken instead. Sterling attends the funeral of Hambone in a play set in this city, where a wise woman lives in the Hill and dies at the age of 366. In a play set in this city, a head injury causes a war veteran to believe he is the Archangel (*) Gabriel. This city, the setting of *Two Trains Running*, is the home of the Charles family, which gets into a long and bitter fight over Boy Willie's attempts to sell the title instrument. In another play set here, Troy Maxson refuses to let his son play college football out of fear of racial discrimination. For 10 points, what city is the setting of *The Piano Lesson* and *Fences*, two plays from a cycle by August Wilson?

ANSWER: Pittsburgh <AmLit, JC>

15. According to Arjun Appadurai, the global economy for this thing has five types of "scapes" like "financescapes" and "technoscapes." This is the *first* [emphasize] title noun of a 1976 Marshall Sahlins book that outlines debates between materialist and symbolic theories of it. A book of essays about understanding this thing states that "man is an animal suspended in webs of significance." *The Mind of Primitive Man* says researchers must consider a subject's actions in the context of the subject's one of these without (*) moral judgment, a principle called this thing's relativism. Functionalist theories like Emile Durkheim's argue that this thing evolves in connection with a society's activities - thus its "norms" change over time. For 10 points, name this concept, the collective beliefs and values of a people.

ANSWER: culture [accept word forms; accept cultural economy; accept Culture and *Practical Reason* or *Interpretation of Cultures*] <SocSci, WA>

16. A novel by this author was originally subtitled "Banker," referring to the protagonist proving himself by fishing in Newfoundland's Grand Banks. This author wrote about a spoiled boy who joins the crew of Disko Troop's schooner. This author wrote about a religious man who refuses to sell his painting of a wheel of life, and who goes to the Wonder House in search of a river that sprang from an arrow. He wrote about Harvey Cheyne in his novel (*) *Captains Courageous*. The title character of a novel by this author is the son of an Irish soldier who lives on the streets of Lahore before meeting a Tibetan lama. That boy helps British agents in the "Great Game" while traveling across India. For 10 points, name this English author of *Kim* and *The Jungle Book*.

ANSWER: Rudyard Kipling [Joseph Rudyard Kipling] <BritLit, RY>

17. To recover from an event in this city, Queen Maria the Pious founded the Casa Pia educational charity. Over the ruins of a hospital in this city, the Square of the Fig Tree was built as part of an effort led by Manuel Maia. An attack on a king on his way back to his tent court of Ajuda outside this city led to the killing of the entire Tavora family. Survivors of an event here were told to "bury the dead and heal the living." This city suffered destruction in an event on (*) All Saints' Day. Its Baixa ["BYE"-sha] district was rebuilt under the direction of the Marquess de Pombal, minister to Joseph I of Braganza. An event here inspired a namesake poem by Voltaire as well as *Candide*. The Tagus River flooded during a devastating 1755 earthquake named for this city. For 10 points, name this capital of Portugal.

ANSWER: Lisbon [or Lisboa] <EuroHist, JZ>

18. The severity of this condition can be quantified using the six-parameter Johnson-DeMeester score. Drugs used to treat this non-tumor condition are typically also used to treat Zollinger-Ellison syndrome. This condition may lead to the unnatural appearance of goblet cells: a condition named for Barrett. A treatment for this condition named for Nissen involves wrapping up the fundus. This condition can result in stricture and is commonly treated with (*) proton-pump inhibitors such as omeprazole. This condition typically occurs due to failure of the lower esophageal sphincter and can be monitored by observing the pH of the throat. For 10 points, name this condition that causes the lining of the esophagus to be damaged by stomach acid.

ANSWER: acid reflux [or gastroesophageal reflux disease; accept GERD; prompt on heartburn] <Bio, AW>

19. This object is entrusted to a sorceress who produces a counterfeit and stages a duel between her lover and the owner of this object. A portion of it that heals wounds is thrown away as revenge for the death of Accolon. The name of this object may be related to a rainbow-producing possession of Fergus mac Roich named Caladbolg. As its owner dies, this object is ordered to be cast into a (*) lake three times, after which a hand reaches out from the waters to grasp it. This object is first presented after a duel in which Pellinore is magically put to sleep to protect its owner. After the Battle of Camlann, Bedivere returns this object to the Lady of the Lake. It is commonly agreed that this weapon is distinct from the sword in the stone. For 10 points, name this magic sword of King Arthur.

ANSWER: Excalibur [or Caliburn; or the sheath of Excalibur; or Caladbolg before “Caladbolg” is read; do not accept “sword in the stone”] <Myth, EK>

20. George Orwell attacked an installation piece by this artist that shows a chauffeur with a shark head as “diseased and disgusting.” This artist of *Rainy Taxi* modeled a painting of an artist leaning on a maulstick with a bottle resting on his extended leg on an older artist’s *Allegory of Painting*. Another of this artist’s paintings shows diseased dogs at the bottom right of a blue-gray hand-like shape which is juxtaposed with an orange figure (*) kneeling next to a pool. This artist of *The Ghost of the Vermeer of Delft Which Can be Used as a Table* and *The Metamorphosis of Narcissus* painted a dying tree branch holding one of three melting objects in a painting which shows ants running over a clock. For 10 points, name this surrealist who executed *The Persistence of Memory*.

ANSWER: Salvador Dalí [or Salvador Domingo Felipe Dalí i Domènech, 1st Marqués de Dalí de Pubol] <Painting, PC>

IF THE GAME IS A TIE AFTER REGULATION: Report to the tournament director. Then, read a bonus from the tiebreakers packet that the tournament director determines the team has not yet heard.

BONUSES

1. A major dramatic style from this country produced plays that were usually performed on groups of two or four large painted wagons. For 10 points each:

[10] Name this country whose Golden Age theater's emphasis on honor was likely influenced by the Moors. This country was home to Lope de Vega, who supposedly wrote two plays a week for a total of 1,800.

ANSWER: (Kingdom of) Spain

[10] This ubiquitous literary character first appeared on stage in a Golden Age-era Tirso de Molina play about him and "the Stone Guest." This scoundrel dies by supernatural retribution while in the tomb of a commander he killed.

ANSWER: Don Juan [prompt on "The Trickster of Seville"]

[10] Golden Age theater often featured the cynical *gracioso*, or clown; one of them, Clarin, meets this prince, whose father Basilio imprisons him out of fear of a prophecy that he will ruin the kingdom of Poland.

ANSWER: Segismundo (from *Life is a Dream*) <EuroLit, JC>

2. This actress gained fame in a role as a Mongol slave girl who poisons the caliph's daughter in the classic 1924 Douglas Fairbanks swashbuckler film *The Thief of Bagdad*. For 10 points each:

[10] Name this actress who also appeared in films like *The Toll of the Sea* and later alongside Marlene Dietrich in *Shanghai Express*. The Hays Code prevented her from starring in an adaptation of Pearl S. Buck's *The Good Earth*.

ANSWER: Anna May Wong

[10] This director depicted himself caught in a shootout in a hall of mirrors at the end of his *The Lady from Shanghai*, which starred his wife Rita Hayworth.

ANSWER: Orson Welles [George Orson Welles]

[10] The director of *The Thief of Bagdad*, Raoul Walsh, played John Wilkes Booth in this director's film *The Birth of a Nation*.

ANSWER: D.W. Griffith [David Llewelyn Wark Griffith] <OArts, RY>

3. This system's Hamiltonian contains a potential equal to the Coulomb attraction between two particles with the fundamental charge. For 10 points each:

[10] Name this system consisting of an electron orbiting a proton. The muonium is a similar system to this system, with an antimuon in place of the central proton.

ANSWER: hydrogen atom

[10] The Lyman-alpha transition in hydrogen can result in a pair of spectral lines in the presence of a magnetic field due to differences in spin states, an effect known by this name. Splitting due to this effect causes the transitions required for electron spin resonance.

ANSWER: Zeeman effect

[10] Another oddity in the hydrogen spectrum is this difference in energy between the $2S_{1/2}$ [two-S-one half] and $2P_{1/2}$ [two p one half] states not predicted by the Dirac equation.

ANSWER: Lamb shift <Phys, AW>

4. This title was formally abolished with the proclamation of a Sultanate at the outbreak of World War I. For 10 points each:

[10] Identify this title, a rough equivalent of “viceroy.” It was first claimed by a man who was given the title *wali* in 1805, and its usage was finally sanctioned by Sultan Abdulaziz in 1867.

ANSWER: khedive [or hidif]

[10] This ruler, the first to claim the title of *khedive*, set a trap at a citadel and slaughtered numerous Mamluks in 1811. His son Ibrahim was crushed at the Battle of Navarino.

ANSWER: Muhammad Ali Pasha [or Mehmet Ali Pasha]

[10] Muhammad Ali was *khedive* of this modern-day African country, where he took over from the Mamluks.

ANSWER: Egypt [or Misir] <WorldHist, WA>

5. This company recently bought cloud computing company NetSuite for \$9.3 billion. For 10 points each:

[10] Name this giant tech company, which mainly sells business and database software. This company, the second-largest software company in the world, has Larry Ellison as its CEO.

ANSWER: Oracle Corporation

[10] Oracle is a major player in the market for this kind of software and has a partnership with its largest provider, Salesforce. This kind of software tracks the lifecycle of a business’s interactions with a consumer.

ANSWER: customer relationship management (software) [CRMs]

[10] Salesforce has managed to dodge being taken over by both Oracle and this other tech company, which recently purchased its own fleet of cargo planes, and plans it to roll out a drone-based service in the future.

ANSWER: Amazon.com <Other, WA>

6. A man is shown vomiting in this work, succumbing to effects of its title event. For 10 points each:

[10] Name this large painting, one of thirteen stolen from the Isabella Stewart Gardner museum in 1990. In this work, the only figure facing the viewer is a man with a hand on his head who strongly resembles the artist’s self-portraits; he’s surrounded by Jesus and others on a small craft.

ANSWER: Storm on the Sea of Galilee [or Christ in the Storm on the Sea of Galilee]

[10] *Storm on the Sea of Galilee* is the only seascape by this artist of a series dedicated to the five senses. This Dutchman painted the company of Frans Banning Cocq in *The Night Watch*.

ANSWER: Rembrandt van Rjin

[10] This large painting in the National Gallery by Rembrandt features a woman spilling wine on her sleeve in shock over a seeing a floating hand.

ANSWER: Belshazzar’s Feast <Painting, PC>

7. Warren McCulloch and Walter Pitts developed an early model for these systems using so-called “threshold logic.” For 10 points each:

[10] Name these machine learning systems whose “artificial” variety seeks to emulate their “biological” counterparts.

ANSWER: artificial neural networks [or neural nets or neural circuits]

[10] Neural networks are often used in this branch of computer science whose name was coined by John McCarthy. Its applications include self-driving cars and natural language processing.

ANSWER: artificial intelligence [or AI]

[10] John McCarthy’s other work in computer science include developing this programming language, whose name indicates that is useful to easily manipulate lists.

ANSWER: LISP <OSci, RH>

8. During this event, Caeneus is crushed with tree trunks and stones, but transforms into a bird and harmlessly flies away. For 10 points each:

[10] Name this conflict that is instigated at the wedding of Pirithous when the Lapiths are forced to fight back against their mortal enemies, who have been driven into a frenzy by the smell of wine.

ANSWER: the Centauromachy [or the war between the Centaurs and the Lapiths; or obvious equivalents]

[10] This hero fights for Pirithous and the Lapiths during the Centauromachy. Earlier, he slays the Minotaur after navigating Daedalus's intricate labyrinth.

ANSWER: Theseus

[10] Though he is more commonly called Perdix, Apollodorus gives this name to the nephew of Daedalus. The *Argonautica* recounts how Zeus appointed a character with this name to patrol Crete and protect Europa.

ANSWER: Talos <Myth, EK>

9. This person assembled the Varangian Guard. For 10 points each:

[10] Name this Byzantine ruler, who barely escaped defeat at the hands of the *tsar* Samuel at the Gates of Trajan before later winning the Battle of Kleidion and blinding thousands of his enemies.

ANSWER: Basil the Bulgar Slayer [or Basil II; Basilis Boulgaroktonos]

[10] Basil married his sister, Anna Porphyrogenita, to this man in return for military assistance. The *Primary Chronicle* is the source of an anecdote in which this man sent envoys to learn the religions of the world.

ANSWER: Vladimir I [or Vladimir Sviatoslavich; or Vladimir the Great]

[10] Vladimir the Great was a member of the Rurikid dynasty that led a Slavic state based in this modern day city. Nowadays it is the capital of Ukraine.

ANSWER: Kiev [or Kyiv] <EuroHist, JZ>

10. While living in Samoa, the author made up for ending this novel with a cliffhanger by writing a sequel to it titled *Catriona*. For 10 points each:

[10] Name this novel about David Balfour's travels with Alan Breck after Breck is falsely accused of killing the "Red Fox," an English official.

ANSWER: Kidnapped

[10] In another novel by the author of *Kidnapped*, Mackellar tells the story of this man, who flips a coin with his brother Henry to determine which sides they will take in a rebellion.

ANSWER: the Master of Ballantrae [or James Durie; prompt on Durie]

[10] This Scottish author wrote *Kidnapped* and *The Master of Ballantrae*, as well as *Treasure Island* and *The Strange Case of Dr. Jekyll and Mr. Hyde*.

ANSWER: Robert Louis Stevenson [Robert Louis Balfour Stevenson] <BritLit, RY>

11. This symphony's Allegretto second movement is underlined by a persistent "LONG, short short, LONG, LONG" rhythm. For 10 points each:

[10] Name this A major symphony by Ludwig van Beethoven. Richard Wagner called its finale the "apotheosis of the dance."

ANSWER: Symphony No. 7 [or Seventh Symphony; or obvious equivalents]

[10] Originally dedicated to Napoleon Bonaparte, this Beethoven symphony is often considered the starting point of musical romanticism.

ANSWER: Eroica Symphony [or Symphony No. 3; or Third Symphony; or obvious equivalents]

[10] In the scherzo of the *Eroica* Symphony, a solo for this instrument introduces the opening theme. A solo for this instrument repeats the main theme near the start of the symphony's funeral march second movement.

ANSWER: oboe <Music, EK>

12. A cook named Johnna who belongs to *these peoples* repeatedly quotes, “This is the way the world ends” at the end of Tracy Letts’ *August: Osage County*. For 10 points each:

[10] Give the racial classification for these people whose authors include N. Scott Momaday, who wrote *The Way to Rainy Mountain*. Longfellow’s “The Song of Hiawatha” is about a fictional warrior of these people.

ANSWER: Native Americans [or American Indians; accept Cheyenne; accept Kiowa; accept Pueblo or Puebloans; accept Ojibwe; accept anything else you can confirm is an actual Native American people]

[10] This Native American author wrote about a hydrocephalic Spokane boy named Junior who transfers to an all-white school. This author also wrote the collection *The Lone Ranger and Tonto Fistfight in Heaven*.

ANSWER: Sherman Alexie [or Sherman Joseph Alexie, Jr.]

[10] In this novel by Momaday, the “longhaired” Puebloan Abel clashes with the Priest of the Sun while in a Los Angeles prison and listens to stories told by his grandfather Francisco.

ANSWER: House Made of Dawn <AmLit, JC>

13. The brief period after mixing where this assumption does not hold is the high turnover “burst phase.” For 10 points each:

[10] Identify this assumption that sets the change of concentration of a reaction intermediate to zero, so as to allow kinetics to be in terms of just reactants and products.

ANSWER: steady state approximation [or stationary state approximation]

[10] The steady state approximation is applied when using the Michaelis–Menten equation, which describes the kinetics of these biological catalysts.

ANSWER: enzymes

[10] The numerator of the Michaelis–Menten equation multiplies substrate concentration by this quantity, half of which is reached when the substrate concentration is equal to the Michaelis constant.

ANSWER: V_{max} [accept answers along the lines of “maximum velocity” or “maximum rate”] <Bio, AW>

14. Isn’t purple a wonderful color? For 10 points each:

[10] Roman Senators were marked by having a purple stripe on this popular Roman garment, wrapped around the body, which includes the *praetexta* variety.

ANSWER: togas

[10] In the classical world, purple dye was often obtained from this civilization’s city of Tyre. These maritime people from modern Lebanon created an alphabet later modified by the Greeks.

ANSWER: Phoenicia [or Phoenicians; or Phoinike; prompt on Canaan]

[10] The famous Tyrian purple dye could be obtained from milk secreted when these snails were prodded or attacked. The Tyrians preferred to boil these animals in lead vats for days, giving off a legendarily horrible smell.

ANSWER: murex snails [or murexes; or murices; prompt on “shellfish”] <Brit/ClassHist, JZ>

15. This adjective denotes propositions which have meaning independently, *as opposed to* propositions which only have meaning in “synthetic” context. For 10 points each:

[10] Identify this adjective, which also denotes the English-speaking philosophical tradition focusing on precision of argument and word usage, as contrasted with continental philosophy.

ANSWER: analytic (philosophy or propositions)

[10] This two-word name is applied to philosophers in the analytic tradition like J. L. Austin, who believed that problems in philosophy stem from arguments that forget the meaning of words.

ANSWER: ordinary language (philosophy)

[10] This analytic philosopher wrote the treatise *Principia Mathematica* with Alfred North Whitehead. This non-Christian analogized an undiscoverable God to a namesake “teapot” floating in space.

ANSWER: Bertrand Russell [accept Russell’s teapot] <Phil, WA>

16. Cartelization and predatory pricing are methods of discouraging this phenomenon. For 10 points each:

[10] Identify this economic process that provides the mechanism for Adam Smith's metaphorical "invisible hand." In most cases, economists tend to agree that this process improves quality and lowers price.

ANSWER: economic competition [or rivalry or similar answers]

[10] This simple model of competition was inspired by its creator's observation of a spring water duopoly. In this model, profit-maximizing firms have market power and compete on output, which they each decide independently.

ANSWER: Cournot competition [or Cournot model]

[10] Basic models of Cournot competition make this assumption about the products. This assumption is also made about all products created by firms in perfect competition. A description is acceptable.

ANSWER: homogeneous products [accept equivalents that indicate that the products are the same, or that they are non-differentiated, or really anything similar] <SocSci, WA>

17. Nathan Glazer and Daniel Patrick Moynihan collaborated on a sociological study whose title purports to go "beyond" this cultural concept. For 10 points each:

[10] Identify this two-word concept derived from the title of a 1908 play by Israel Zangwill. In that play, David Quixano falls in love with Vera, a Russian noblewoman from Kishineff.

ANSWER: melting pot [or *The Melting Pot*]

[10] The play moved this President to write that "We Americans are children of the crucible." In other speeches, he criticized so-called "hyphenated Americans" and urged Americans to embrace the "strenuous life."

ANSWER: Theodore Roosevelt, Jr. [or Teddy Roosevelt; prompt on Roosevelt]

[10] In the play, David Quixano hails the "unborn millions" destined to immigrate to America while he stands near this New York landmark, a gift from France designed by Frederic Bartholdi and Gustave Eiffel on Bedloe's Island.

ANSWER: The Statue of Liberty [or nicknames like Lady Liberty] <AmHist, RY>

18. This poet wrote about a man from "up by Kosciusko's side" who chased down a valuable runaway colt even after famous horsemen like Clancy of the Overflow had failed. For 10 points each:

[10] Name this poet who wrote about life in his country's bush in the literary journal *The Bulletin*, including his poem "The Man from Snowy River."

ANSWER: Banjo Paterson [Andrew Barton "Banjo" Paterson]

[10] Banjo Paterson was a poet from this country; he wrote this country's much-beloved song about a "jolly swagman" who "camped by a billabong," "Waltzing Matilda."

ANSWER: (Commonwealth of) Australia

[10] The line "I work all day and hardly drink at all" opens a poem by Australian poet Les Murray, which parodies this Englishman's poem "Aubade." Another of his poems advises "Get out as early as you can, and don't have any kids yourself."

ANSWER: Philip Larkin [Philip Arthur Larkin] <OLit, RY>

19. These peoples' cosmogony tells of a vast primordial darkness called *po*, out of which deities called *atua* came and shaped the world. For 10 points each:

[10] Identify these diverse peoples, who share in common a concept of sacred *mana* which provides authority to chiefs. Many of them tell a story of how the sun was tied down with rope.

ANSWER: **Polynesians** [accept specific Polynesian peoples, such as **Hawaiians** or **Tongans**]

[10] This word of Polynesian origin initially referred to socially prohibited actions considered too sacred or accursed for individuals to undertake. In English, it refers to socially unacceptable actions in general, such as incest.

ANSWER: **taboo** [or **tapu**]

[10] These native Hawaiian sorcerers and priests served as general community leaders in everyday tasks in addition to their religious role. One of them who mastered all ten types of sorcery would be known as *nui*.

ANSWER: **kahunas** <Rel, WA>

20. These entities typically interact with metal centers by forming dative bonds. For 10 points each:

[10] Name these molecules that contain electron pairs which can form coordination complexes with metals. Phosphines and carbenes are popularly used examples for catalytic complexes.

ANSWER: **ligands**

[10] Ligands that can perform this process of binding a metal center at multiple sites are characterized by their denticity and a "bite angle." A ligand that can perform this process is the hexadentate EDTA.

ANSWER: **chelate** [KEE-late] [accept word forms such as **chelation** or **chelating**]

[10] The size of a ligand can be quantified by this value, which is the solid angle that the ligand's hydrogens form with the metal. This term was coined by Tolman while studying phosphines [FOHS-feenz].

ANSWER: ligand **cone angle** [accept Tolman **cone angle**] <Chem, AW>

IF ADDITIONAL BONUSES ARE NEEDED: Report to the tournament director. Then, read a bonus from the tiebreakers packet that the tournament director determines the team has not yet heard.