Chicago Open 2013: No Subtext, Just Tacos. Packet by Andrew Hart, Ted Gioia, Mike Sorice, and Andrew Ullsperger Edited by Matt Bollinger, Libo Zeng, Sriram Pendyala, Dennis Loo, Sinan Ulusoy, and Kevin Koai, with invaluable contributions by Matt Jackson

TOSSUPS

1. At the end of this novel, the protagonist lives in a two-room cottage with Tekla and is visited by the remorseful people who beat him within an inch of his life. Its protagonist confesses to misdeeds near the end of this novel, leading to his beating at the hands of Nikita and his loss of hearing, which causes him to stumble in front of a moving tram. The frame narrator of this novel is an English professor of languages in Geneva who receives the protagonist's records and tutors his love interest, Nathalie, who is the brother of a revolutionary executed for assassinating a (*) Russian politician. This novel's protagonist is expelled from Russia as a spy for the tsarists but confesses to revolutionaries that he had betrayed revolutionary assassin Victor Haldin. For 10 points, name this novel about the student Razumov, written by Joseph Conrad, whose title reflects the fact that the English narrator is observing Russians from the East.

ANSWER: Under Western Eyes

- 2. The MarR gene is upregulated in E coli that have the ability to resist one class of these compounds. Another class of these compounds is divided into four generations with ever increasing gram-negative properties, and the third generation of that class crosses the blood-brain barrier and is used to treat meningitis. Aztreonam is a member of a small class of these with no fused ring. One enzyme that can hydrolyze a broad-spectrum class of these compounds generated controversy for implying (*) Indian hospitals were unsafe - that enzyme is NDM-1. 2-Azetidinone may be considered the simplest example of these compounds, which are characterized by a moiety that resembles D-alanyl-D-alanine, allowing them to disrupt the synthesis of peptidoglycan in cell walls. For 10 points, name this family of compounds with antibiotic activity which include carbapenems, cephalosporins, and penicillins which are based around a cyclic amide. ANSWER: beta-lactams [accept carbepenems before "generations", anti-prompt on carbepenems, monobactams,
- cephalosporins and penicillins]
- 3. One member of this family was nicknamed the "petticoat cardinal," since he rose in power thanks to his sister Giulia's affairs with Alexander VI. Another influential cardinal from this family commissioned Giulio Clovio to illuminate a Book of Hours pairing bible stories with classical myths. Innocent X set up a pillar reading "Here stood Castro" after razing that city in a war between this family and the Papal States. A Spanish queen from this family provoked the War of the (*) Quadruple Alliance by working with Giulio Alberoni to embolden the foreign policy of her husband, Philip V. This family reached its peak under the Pope who convened the Council of Trent, Paul III. Perhaps the most famous nobleman from this family was a nephew of Philip II of Spain, for whom he reconquered most of modern Belgium and used a bridge of boats to seize Antwerp. For 10 points, name this influential Italian family that controlled the Duchy of Parma and owned a namesake "Hercules." ANSWER: Farnese Family
- 4. In a game subtitled for one of these locales, the Brotherhood of the Seth meets the player at High Rock before a quest to the Crypt of Hearts, and visions from Ria Silmane help the player find pieces of the Staff of Chaos. One of these places is southwest of the boss, Oleg, in the chapter in which the dancer Ninian joins Eliwood's party. After getting it at Crowhaven, the player takes Lord Lovidicus's diary to a place of this type, which employs Ysabel Andronicus and Agronak Gro-Malog, the half-orc "Grey Prince." A place of this type names the game in which Battlemage (*) Jagar Tharn usurps Uriel Septim. In Fire Emblem 7 and 8, the player can wager cash in these abusable places, where fights do not end after the second unit attacks. A yellowhaired Adoring Fan can follow you after you become Grand Champion of the one in Oblivion. For 10 points, name these locales which lend their name to the first Elder Scrolls game, such as the building in the Imperial City where audiences watch staged battles.

ANSWER: arenas [or the Arena; accept The Elder Scrolls 1 : Arena; accept Imperial City Arena; generously prompt on "colosseums" or "stadiums"]

5. On his deathbed, this man gave police an unintelligible confession concluding with the exclamation "French-Canadian bean soup!" He directed his underling Jules Martin to incite strikes at restaurants that did not pay fees to the "Metropolitan Restaurant and Cafeteria Owners Association." Dixie Davis helped this man take over the "numbers" racket, one of the only black-run rackets in his city. After twice beating charges of tax evasion, this man converted to Roman Catholicism on the belief that Jesus had saved him This man is a leading suspect in the death of his rival, (*) "Legs" Diamond. Charles Workman and Mendy Weiss gunned this man down in the Palace Chop House of Newark to prevent him from calling a hit on the New York prosecutor who brought him down, Thomas Dewey. For 10 points, name this gangster who built up a bootlegging empire in the Bronx.

ANSWER: Dutch **Schultz** [or Arthur **Flegenheimer**]

6. One triptych by this man consists of a withered dead body with a skull for a head on the left, a plump woman vainly looking in a mirror in the center, and a horned demon with a second face on its stomach stomping damned souls with its chicken feet on the right. This artist painted the panels housed in gold-gilded wood frames in the St. Ursula shrine, found in his adopted hometown. Another triptych by this painter of the *Triptych of* (*) *Earthly Vanity and Divine Salvation* was captured by pirates and taken to its current place of display in Gdansk. In that painting, St. Peter guides saved souls up a staircase to a magnificent palace on the left, a goldenarmored Saint Michael weighs naked people using some giant scales in the center, and cast-off sinners tumble into the inferno on the right. For 10 points, name this Northern Renaissance painter from Bruges, a student of Rogier Van Der Weyden who painted a *Last Judgment* triptych.

ANSWER: Hans Memling [or Hans Memlinc]

- 7. On Ceos, this man put the murderers of Icarius to death and offered sacrifices to Zeus, thereby convincing Zeus to send the Etesian Winds to cool the heat of the Dog Star. Though he is not Menelaus, this man was instructed to sacrifice four cows and four bulls, then bring a black ewe and poppies to their corpses nine days later, after he successfully captured the shape-shifting Proteus. This man was born in Libya to a nymph who had been carried off while wrestling a lion on Mount Pelion. Father to the ill-fated hunter Actaeon, this man is the subject of an *epyllion* in the fourth book of (*) Vergil's *Georgics*. This son of Cyrene brought a bunch of bees out of a rotting corpse to end a curse placed on him after a woman was bitten by a snake on the banks of Tempe. For 10 points, name this honey-loving son of Apollo whose pursuit of Eurydice resulted in her death. ANSWER: Aristaeus
- 8. For a dumbbell, a naïve calculation of this quantity in cgs units will result in a constant factor of one over three c-cubed, half the actual value; that can be amended by recursively applying the same procedure to each pole of the dumbbell, or by using a continuous strip. This vector quantity can be derived more directly by time integrating by parts the acceleration squared over a full cycle, canceling boundary terms, and then realizing that the result minus the integral over the same interval of this quantity dotted with the velocity must vanish. Thus, dotting this quantity with the velocity and time-averaging will give the (*) Larmor formula. This quantity is given by the Abraham-Lorentz formula and results from the interaction of a charge with its own retarded field, thus changing its momentum. For 10 points, name this relativistic quantity that can be understood as the recoil of a particle emitting Bremsstrahlung photons.

ANSWER: the <u>self-force</u> [or <u>radiation reaction</u> force or <u>radiation recoil</u> force; accept <u>Abraham-Lorentz force</u> before Abraham-Lorentz is mentioned, prompt afterwards; prompt on partial answers]

9. This man included his composition "Stuffy" on a collaboration with vibraphonist Milt Jackson entitled Bean Bags. The Depression forced this man to leave Fletcher Henderson's band for a five-year stay in Europe. This man reworked a recording of song he developed at Kelly's Stables into an unprecedented, unaccompanied solo called "Picasso;" that feat was later matched by Eric Dolphy on a similar instrument. Thelonious (*) Monk got his start recording with this musician's quartet. On an album released by Impulse! Records, Duke Ellington "Meets" this man, who appears "At The Opera House" with his co-bandleader Roy Eldridge. Bebop is sometimes held to have begun with this man's recording of a Johnny Green standard. For 10 points, name this jazz saxophonist behind an influential recording of "Body and Soul."

ANSWER: Coleman Hawkins

10. One work in this genre is comprised of two speeches by Henry and a conversation between Henry and his dead wife Ada. In another work in this genre, comprised of three episodes that include "The trip there," "The station," and "The walk home," Maddy Rooney learns that the train was late because a child fell out of the carriage. Desmond Briscoe was a pioneering figure in this genre, another work in which includes a blind sea captain who pines for his dead love Rosie Probert and a baker named Dai Bread who has two wives, one of whom is lusted after by the fisherman (*) Nogood Boyo. Harold Pinter's A Slight Ache and Robert Bolt's A Man for All Seasons were originally written in this genre, which is also exemplified by Samuel Beckett's Embers and All That Fall and a work in which Organ Morgan, Polly Garter, and Captain Cat are all residents of Llareggub, a Welsh town. For 10 points, Dylan Thomas's Under Milk Wood is exemplary of what genre of plays written for an audio-only broadcast medium?

ANSWER: <u>radio</u> play/drama/theater [accept <u>audio</u> play/drama/theater before "audio" is read; prompt on <u>play</u> or **drama** or **theater** or equivalents]

11. Quine rejected the use of this property as an operator on open formulae because such usage leads to "referentially opaque" contexts. A distribution axiom symbolized by a boldfaced K applies the distributive property to this property. In some formulas named for female Yale philosopher Ruth Barcan Marcus, this property's operator is symbolized by a square; that square symbolizing this property also appears in axiom (*) S5 before a diamond. A proposition which is true in all possible worlds has this property. The idea that truths of this type can be *a posteriori* was pioneered in a three-lecture series given at Princeton in 1970, using the example "Water is H2O". For 10 points, name this type of truth contrasted with contingent truths, which was discussed by Saul Kripke along with "Naming."

ANSWER: <u>necessary</u> truths [or <u>necessary</u> propositions; or <u>necessity</u>/ies; or "it is <u>necessary</u> that..."; or <u>necessity</u> operator]

12. One geographic region named for this material is famous for its "cat steps" and is sometimes known as the "land of the fragile giants." The term paha describes a hill covered with this material, such as those namesake hills found in eastern Iowa. Non-classical examples of this include the Ecuadorean "cangahua" originating from pyroclastic flows and a type found in Spain produced by gypsum weathering, but this material most commonly has a periglacial origin. Charles Lyell noted the similarity of this material found in the Mississippi basin to material found around the Rhine.(*) Its component particles are 2 to 64 microns in diameter, allowing for aeolian transport, and its loose cementing allows it to form vertical bluffs which are common on the banks of rivers. Prominent deposits of this sediment are found in the Palouse region of Washing and in the Huang He river basin, where this material provides a distinctive coloration. For 10 points, name this sediment composed of wind-deposited silt.

ANSWER: loess

13. A conflict centered on a party named for this state, which later spawned the KADEK and KONGRA-GEL organizations, prompted Operations Steel and Hammer in the mid-1990s. The leader of a political party named for this state was captured in Nairobi in 1999 and sentenced to death for treason under Article 125. This state lends its name to an autonomous region that was created in a 1970 agreement between a national leader and Mustafa Barzani. A political party containing the name of this state is led by a man who, from 1999 to 2009, was the (*) sole prisoner on Imrali Island in the Sea of Marmara. The "Deep State" is opposed to the creation of this state, which lends its name to a region that contains the capital city of Hewler. For 10 points, name this nonexistent state that the Turkish PKK party desperately wants to create out of portions of Syria, Iran, Iraq, and Turkey, which would provide a homeland for a namesake ethnic group.

ANSWER: Kurdistan [or Corduene; accept anything that indicates Kurdish homeland or Kurd state]

14. The Groves-Ledyard mechanism aims to encourage people to reveal their demand for these entities. Depending on whether groups that provide them expand or contract, Mancur Olson divided these into inclusive and exclusive kinds. Erik Lindahl proposed a tax based on people's utility derived from these entities. The Samuelson condition states that these (*) goods are efficiently provided when the marginal rate of transformation equals the summed marginal rate of substitution for all individuals. Private markets often underprovide these goods because their demand curves are found by vertically summing individual demand curves. The free rider problem was motivated by these non-rival, non-excludable goods. For 10 points, name these goods which are typically shared by members of a community.

ANSWER: <u>public goods</u> [or "<u>collective good</u>s"; prompt on "<u>non-rival goods</u>" or "<u>non-excludable goods</u>," or equivalents]

15. At the end of this story, the protagonist gives up his faith in life after death and has a vision of a herd of deer running in front of him just before dying. In this story, the protagonist gives a kopeck to a man who is running around stupidly with bare feet in galoshes in the rain, the Jew Moiselka. This story's protagonist, takes a trip to Moscow with his friend the postmaster Mikhail Averianych that bankrupts him. Its protagonist converses about Stoicism with (*) Gromov, whom he calls a prophet. On his return, its protagonist discovers that he has been fired by Khobotov and falls into a deep depression, after which Khobotov tricks him into entering a place where he is savagely beaten by the guard Nikita. At the end of this story, Dr. Andrey Yefimich Rabin dies of an apoplectic stroke after being locked in the title place, which he used to run. For 10 points, name this short story named for a lunatic asylum, by Anton Chekhov.

ANSWER: "Ward No. 6" [or "Ward 6"]

16. In a ritual over a dead one of these creatures, priests say phrases such as "Hey overseer, hey overseer, your mother and father play in the top of a tree" and "Hey invoker, hey invoker, when the gods see that miserable penis..." during a full night of holy insults. One of these creatures which disappeared into the Furat river to mark the death of Husayn was named Zuljanah. In ancient Rome, the head of one of these creatures was decorated with bread and devoted to Mars after being severed on the Ides of October. This animal is the primary metaphor for a Santería priest inhabited by an orisha during (*) trance possession. These animals were paraded around the world for a year before symbolically copulating with an Indo-Aryan queen. The healing of a paralyzed black one of these animals led Vishtaspa to convert to Zoroastrianism. For 10 points, name these animals sacrificed in the ashvamedha ritual described in the Vedas, a red example of which is ridden by War in the Book of Revelation.

ANSWER: horses

17. Arthur Honegger's Concerto da camera features a flute and one of these instruments as soloists, and the original version of Elliott Carter's Pastoral is for piano and this instrument. Haydn's "Philosopher" Symphony is unusually scored for only strings, two horns, and two of these instruments. The second movement of Cesar Franck's Symphony in D minor opens with this instrument playing the main melody over harp and pizzicato strings. A lyrical theme derived from a duet between Benvenuto Cellini and Teresa is played by this instrument in Berlioz's Roman Carnival Overture. This instrument introduces the theme of the second movement of (*) Rodrigo's Concierto de Aranjuez, and it is joined by a solo flute in the Ranz des Vaches section of Rossini's William Tell Overture. A melody that was adapted into the faux-spiritual "Goin' Home" is played by this instrument in the Largo movement of Dvořák's "New World" Symphony. For 10 points, name this double-reed woodwind instrument, the larger relative of the oboe.

ANSWER: English horn [or cor anglais]

18. This city's 19th-century fortified walls, or "Festung," fell in a 1945 World War II battle that culminated at Fort Winiary, which toppled this capital of the Reichsglau Wartheland. In a treaty named for this city, Saxony was forced to pay 25 million francs and join the Confederation of the Rhine to end the War of the Fourth Coalition. This city, which is southwest of the historical population centers of Thorn and Bromberg, was, along with Gniezno, the center of power for the Piasts under Mieszko I and the likely site of his baptism. The 1806 Polish Uprising began when Napoleon sent General Dabrowski to this city, which was the site of a (*) namesake province, created after the 1848 revolutions ended another polity named for this city that was created after the Partitions of Poland. For 10 points, identify this city in western Poland that gives its name to the Prussian Grand Duchy that was formally recognized at the Congress of Vienna.

ANSWER: Posen [or Poznan; accept Grand Duchy of Posen or Province of Posen]

19. The birth of this novel's protagonist is witnessed by Clarentine, the mother of her eventual husband, and door-to-door salesman Abram Skutari, better known as "The Old Jew." A trip to the Orkney Islands reveals that Magnus, the father of the protagonist's dead husband, is still alive at 115 years old in this novel, which includes a section in which the protagonist writes a gardening column under the name Mrs. Green Thumb. Its protagonist's first husband dies from drunkenly falling out of a window on their honeymoon in France and her second husband Barker was previously her adoptive father figure. This work traces the life of its

protagonist from her birth in (*) Saskatchewan through her childhood in Indiana and her retirement and death in Florida. Because of its author's dual citizenship, it's the only book to win both a Pulitzer and the Governor General's Award in Canada. For 10 points, name this 1993 novel about the life of Daisy Goodwill Flett, whose existence is filled with lots of names and events relating to rocks, written by Carol Shields. ANSWER: *The Stone Diaries*

20. Commercial products of this type of reaction include Telene and Prometa, both of which use dicyclopentadiene as the starting material. Norbornene and norbornene dicarboxylic acid are also popular starting materials for this type of reaction, which has been shown by Ahmed et al. to allow polydispersity control when creating diblock copolymers. Recoordination with the catalyst can terminate this reaction by forming a cyclic oligomer, a process known as "back-biting." A chain transfer agent can be used to add terminal functional groups or to limit the product molecular weight. Common catalysts for this type of reaction are metal-carbene complexes such as those named for Schrock and for Grubbs. These reactions are driven by the relief of strain, making cyclohexene a poor choice of monomer. For 10 points, name this type of chain-growth polymerization reaction that unfolds and attaches cyclic alkenes.

ANSWER: **ROMP** [or **ring-opening metathesis polymerization** (prompt on partial answer or **olefin metathesis**)]

21. In June, an argument has erupted regarding MCC's treatment of T'ang-era Stupas and other archaeology near one of these sites in Logar Province, Afghanistan. That one is potentially the world's second largest and is known as Mes Aynak. The world's largest one of these is owned by Turquoise Hill, a subsidiary of Rio Tinto; that one located in Mongolia is called Oyu Tolgoi. Escondida is a strike-prone one of these facilities in (*) Chile, which is currently the world's biggest producer of the commodity in question. Morencini is the largest of these in the U.S. and produces mostly porphyry. For 10 points, name these sites originally found on Cyprus, where ores of a highly conductive metal can be found.

ANSWER: <u>copper mine</u>s [prompt on <u>mine</u>s; accept things like <u>copper deposit</u>s or <u>copper ore bodie</u>s; Mes Aynak is also a <u>gold mine</u>, so accept that before "Turquoise Hill"]

BONUSES

1. Morera's Theorem says that if a function's integral around every triangle in a domain vanishes, then the function has this property. For 10 points each:

[10] Name this property whose whole-plane version, entireness, is the hypothesis in Liouville's Theorem.

ANSWER: analyticity [or holomorphicity]

[10] Analyticity is the subject of this basic theorem of complex analysis. It says that a closed-curve integral of any analytic function vanishes.

ANSWER: the **Cauchy**-Goursat integral theorem

[10] Goursat amended Cauchy's theorem by relaxing this assumption, which is equivalent to saying that the function in question is in C-1. A description is fine here.

ANSWER: the function is **smooth** (to first order) [accept things like the function has a **continuous** first **derivative** or is **continuously differentiable**; do not accept or prompt on continuous alone]

2. This man paid a visit to Louis XVIII in the Low Countries, earning the pejorative nickname "The Man of Ghent." For 10 points each:

[10] Name this man who loomed large over pre-1848 French politics as a jack-of-all-trades minister to Citizen King Louis Philippe.

ANSWER: Francois [Pierre Guillaume] Guizot

[10] As Foreign Minister, Guizot presided over the deterioration of British and French relations in an affair named for the marriages of Queen Isabella II and the Infanta Luisa Fernanda in this country.

ANSWER: Kingdom of **Spain** [or Reino de **España**; accept Affair of the **Spanish** Marriages]

[10] Prior to the 1830 July Revolution, Guizot was a leader of this circle of French Royalists who attempted to reconcile the monarchy's power with the Revolution's principles of democracy and liberty.

ANSWER: Doctrinaires

3. Name the following about contributors to the Eleventh Edition of the *Encyclopedia Britannica*, for 10 points each. [10] The primary arts editor was William Michael, the brother of this female English poet of *Goblin Market*.

ANSWER: Christina [Georgina] Rossetti

[10] This English poet, the inventor of the roundel form and author of the poem "The Triumph of Time," was the author of several literature articles.

ANSWER: Algernon Charles **Swinburne**

[10] This Victorian author and critic of the memoir *Father and Son*, about his childhood with his puritanical marine-biologist father Philip Henry, was a *Britannica* contributor who introduced the English reading public to the plays of Henrik Ibsen with his translations of *Hedda Gabler* and *The Master Builder*.

ANSWER: Sir Edmund [William] Gosse

4. In the aftermath of this incident, Rear Admiral Henry T. Mayo demanded a 21-gun salute. For 10 points each:

[10] Name this incident in which sailors from the USS *Dolphin* were mistakenly arrested in 1914.

ANSWER: **Tampico** Affair

[10] Mayo finally got his 21-gun salute in the wake of the Tampico Affair, but it was too late to prevent the occupation of this Mexican port on the Gulf of Mexico under U.S. commander Frank Friday Fletcher.

ANSWER: Veracruz

[10] During the occupation of Veracruz, the U.S. illegally detained this German steamer that was attempting to arm Victoriano Huerta's forces, touching off a diplomatic incident.

ANSWER: SS <u>Ypiranga</u> [accept <u>Ypiranga</u> incident]

5. This book consists of five long poems, the first four of which are acrostics. It was supposedly written in a grotto outside the Damascus Gate around 586 BCE. For 10 points each:

[10] Name this book of the Ketuvim that is classically attributed to the Prophet Jeremiah. It is traditionally read on the Ninth of Av.

ANSWER: The Book of **Lamentation**s [or **Eikhah**]

[10] The father of all commentary on Lamentations, as with the Tanach as a whole, is this 11th and 12th Century French Rabbi.

ANSWER: Rashi [or Shlomo Yitzhaki; or Salomon Isaacides; prompt on partial answers]

[10] The inside margin of a page of the Babylonian Talmud contains Rashi's commentary; the outside margin, on the other hand, contains these "additions" written by Rashi's students, family members, and successors.

ANSWER: **Tosafot** [or **Tosaphoth**]

6. The film *Ararat* speculates that this person's hands are unfinished because her son was too sad to continue painting them. For 10 points each:

[10] Name this person who is shown in a head scarf sitting next to her standing young son in two paintings based on a photograph taken in Van, one in the Whitney Museum in New York and the other in D.C.'s National Gallery.

ANSWER: Arshile **Gorky's mother** [prompt on **mother**; accept Vosdanig Manoug **Atoian's mother**]

[10] Gorky's *The Artist and His Mother* is often compared to the mummy portraiture of the Coptic period named after the necropoleis found in this Egyptian basin.

ANSWER: Faiyum basin or oasis [accept Faiyum portraiture or equivalents]

[10] Raphael Soyer admitted that Gorky's mother is "bloodless" in a conversation with this Dutch artist of the *Woman* series, who noted that "the trouble with Arshile [was that] he had no blood."

ANSWER: Willem de Kooning

7. Generally a tensor denoted k, this quantity is equal to the diffusivity times the density times the isobaric specific heat. For 10 points each:

[10] Name this quantity fundamental to heat transfer.

ANSWER: the thermal **conductivity**

[10] The conductivity is the constant of proportionality in this analogue of Fick's Law. This rule of thermodynamics says that the heat flux density is proportional to minus the temperature gradient.

ANSWER: Fourier's Law of Conduction

[10] This quantity is equal to the heat transfer coefficient times the interface characteristic length divided by the conductivity of the bulk material within the interface, or h L over k. It is similar to the Nusselt number and determines whether convection and other Newtonian processes or Fourier conduction back into the bulk body dominate at moving heat away from an interface.

ANSWER: Biot number

8. In this story, the aspiring monk Nobu heads for the seminary after leaving a paper flower for his friend Midori, who is destined to become a prostitute in Tokyo's "floating world." For 10 points each:

[10] Identify this Meiji-era Japanese story collected in In the Shade of Spring Leaves by Higuchi Ichiyo.

ANSWER: "Child's Play" [or "Growing Up;" or "Takekurabe"]

[10] This more famous Meiji-era Japanese author wrote novels like Sanshiro, I Am a Cat, and Kokoro.

ANSWER: Natsume Soseki

[10] In his studies, Sanshiro perplexedly pores over the abstruse prose of this Englishman's flowery *Hydriotaphia*, *Urn Burial*, *or a Discourse of the Sepulchral Urns lately found in Norfolk*.

ANSWER: Sir Thomas Browne

9. Under the Model Penal Code, this element can be negligent, reckless, knowing, or purposeful. For 10 points each: [10] Name this element of a crime, which signifies that a criminal had a properly culpable mindset to be held criminally liable. It comes from the Latin for "guilty mind" and is contrasted with the actus reus, or criminal act. ANSWER: mens rea

[10] This type of crime, such as drunk driving and statutory rape in many jurisdictions, has no mens rea requirement. ANSWER: **strict liability** crime

[10] In this 1952 case concerning a scrap metal dealer who took apparently abandoned bomb casings from a firing range, the Supreme Court ruled that the mens rea requirement applied to every material actus reus element of the crime, or essentially, that the defendant had to know that he was taking *and* that the taking constituted theft. ANSWER: *Morissette v. United States*

10. The chemical shifts for this technique are usually around 20 to 30 times larger than a similar technique involving protons. For 10 points each:

[10] Name this spectroscopic technique which involves an isotope with a 1.1% abundance in nature. Typical chemical shifts generally fall between 0 and 220 ppm in the spectra given by this technique.

ANSWER: Carbon-13 NMR or nuclear magnetic resonance spectroscopy

[10] Carbon-13 NMR spectra are usually acquired in this mode that destroys the interaction between protons and C-13 nuclei. A compromise techniques called the off-resonance form of this restores some of the interaction data. ANSWER: proton-<u>decoupled</u> spectra

[10] Although it is not the APT method, this method of carbon-13 NMR uses a series of angled pulses to determine the number of hydrogens bonded to each carbon atom on the spectrum. The polarization transfer from 1H to 13C increases sensitivity over the normal spectrum, providing an added advantage to using this technique.

ANSWER: **DEPT** [or **distortionless enhancement by polarization transfer**]

- 11. This conflict's short timespan led to its alternate nickname, the 100-Hour War. For 10 points each:
- [10] Name this Central American war fought on the eve of riots surrounding a FIFA World Cup qualifier.

ANSWER: Soccer War [or Football War; or La guerra de fútbol]

[10] The Soccer War boiled over after the United Fruit-sponsored FENAGH organization pressured Honduran president Oswaldo Lopez Arellano to strip squatters and farmers with this status of their land.

ANSWER: immigrants from El Salvador [accept migrants, Salvadorians, or equivalents of either]

[10] This national hero of El Salvador was the highest-ranking officer killed in the Soccer War; he was shot down in urban air combat, but heroically kept his plane aloft until he reached an unpopulated area.

ANSWER: Guillermo Reynaldo Cortez

- 12. This type of weapon is central to one song on which it is used by guest vocalist Snoop Doggy Dogg on his little cousin Daz, with whom Snoop's bitch Mandy May was caught trickin'. For 10 points each:
- [10] Name this type of weapon thus borrowed from Dr. Dre in "Bitches Ain't Shit." The title track from Wu-Tang Clan's *Iron Flag* is alternatively titled for "Da [One of these,]" while Bone Thugs N Harmony sang of "Shotz to tha Double [One.]"

ANSWER: Glock [do not accept or prompt on anything else]

[10] From 1960-73, critic and conductor William Glock organized this series of classical concerts for the BBC. They take place annually, mostly at the Royal Albert Hall and traditionally always end with "Land of Hope and Glory," then *Fantasia on British Sea Songs*, and finally *Rule, Britannia!*

ANSWER: The BBC <u>Proms</u> [currently known as The Henry Wood <u>Promenade Concerts</u> presented by the BBC] [10] The 2009 Proms celebrated Handel, who made excellent use of glockenspiel in this oratorio from 1793. A famous excerpt from this piece is the "Dead March," a funerary piece for the title character.

ANSWER: Saul, HWV 53 [accept either underlined part]

- 13. Zenon Mazurkevich designed the thirteen golden domes of the futuristic St. Joseph the Betrothed Ukrainian Greek Catholic Church on West Argyle Street in this city. For 10 points each:
- [10] Name this city that contains the Carson, Pirie, Scott and Company Building and the Sears/Willis Tower.

ANSWER: Chicago

[10] Chicago owes much of its skyline, including the Inland Steel Building, John Hancock Center, NBC Tower, and Sears/Willis Tower, to Bruce Graham of this architectural firm.

ANSWER: Skidmore, Owings and Merrill LLP [or SOM; prompt on Skidmore]

[10] Mies Van Der Rohe's architectural vision for Chicago's Illinois Institute of Technology was dashed when the institute began granting all commissions for its campus to Skidmore, prompting a bitter Mies never to return. Mies had already designed this steel-and-glass campus building in which the IIT architecture program is based.

ANSWER: S.R. Crown Hall [prompt on Crown]

- 14. This man was inspired to change the culture of his adopted homeland when he bought a cup of tea at Victoria station and was horrified to find that the sugar spoon was strung from the ceiling to prevent theft. For 10 points each:
- [10] Name this adopted Briton, a food critic whose restaurant guides were widely credited with raising culinary standards in postwar Great Britain.

ANSWER: Egon Ronay

[10] Ronay got his critical start writing a column for this newspaper that sparked a diplomatic crisis when it published a 1908 interview in which Kaiser Wilhelm proclaimed that the English were "mad as March hares."

ANSWER: <u>Daily Telegraph</u> [prompt on <u>Telegraph</u>; do not accept "Sunday Telegraph"]

[10] Ronay was born in this country, which was led by Prime Minister Istvan Tisza while joined in a dual monarchy with Austria at the time of Ronay's birth in 1915.

ANSWER: Kingdom of <u>Hungary</u> [or <u>Magyar</u> Királyság; or Regnum <u>Hungaria</u>e; or <u>Ungarie</u>; or <u>Austria-Hungary</u>]

15. In *Time and Western Man*, Wyndham Lewis rails against this thread of thought as expressed in Bergson, calling it philosophy of time. For 10 points each:

[10] Name this 20th-century philosophy advocated by Nicholas Rescher, according to which change and interaction, and not substance, are basic.

ANSWER: <u>process</u> philosophy [or <u>process metaphysics</u> or <u>process ontology</u>; grudgingly accept <u>becoming</u> ontology]

[10] Process philosophy really got going with *Process and Reality*, in which this metaphysician posited temporal and atemporal actual entities as the basic substance.

ANSWER: Alfred North Whitehead

[10] Whitehead collaborated on Principia Mathematica with this author of "On Denoting."

ANSWER: Bertrand Russell

16. This figure was so terrified at the skin of the Nemean Lion that he hid in a bronze jar and only heard of most further events at second hand through his herald Copreus. For 10 points each:

[10] Name this favorite of Hera and administrator of the Labors of Hercules.

ANSWER: Eurystheus

[10] Eurystheus was king of this city, to the throne of which Heracles may have had the better claim. It forms the Argolid trio along with Argos and Mycenae.

ANSWER: Tiryns

[10] The cyclopean walls of Tiryns were built during the reign of this mythical king. This husband of Sthenoboea was briefly expelled from the kingdom by his twin brother Acrisius.

ANSWER: **Proetus** [do not accept or prompt on "Proteus"]

17. This man is the attributed author of the poem "Then Wear the Gold Hat." For 10 points each:

[10] Name this poet who wrote, in a poem used as the epigraph to a novel including the Eyes of Dr. T.J. Eckleberg, "Lover, gold-hatted, high-bouncing lover, / I must have you!"

ANSWER: Thomas Parke **D'Invilliers** [prompt on, but do not reveal, F. Scott **Fitzgerald**]

[10] D'Invilliers is one pen-name of this author, who used that poem about high-bouncing lovers as the epigraph to *The Great Gatsby*.

ANSWER: Francis Scott Key Fitzgerald

[10] In another Fitzgerald novel, D'Invilliers befriends this character who attends Princeton and lusts after Rosalind Connage.

ANSWER: **Amory Blaine** [accept either]

18. Among the criticisms this composer leveled in his essay "Schoenberg is Dead" is that the earlier composer's explorations of serialism had been "carried on unilaterally," which is to say only on the level of pitch. For 10 points each:

[10] Name this composer whose theories on integral serialism were manifest in such works as *Polyphonie X* ["X," not "ten"] and *Structures I* for two pianos.

ANSWER: Pierre Boulez

[10] Nine movements grouped into three cycles make up Boulez's composition titled for one of these objects "without a master." Mahler's "Tragic" Symphony includes three blows "of fate" struck by this percussive object.

ANSWER: <u>hammer [accept The Hammer without a Master</u>; or Le <u>marteau</u> sans maître]

[10] Georges Pompidou's request that Boulez found a musical research foundation led to the creation of this institute, which is housed in an extension of the Pompidou Center and goes by a five-letter acronym. It has spearheaded much music software research and housed such composers as John Cage and Iannis Xenakis.

ANSWER: IRCAM [or Institut de Recherche et Coordination Acoustique/Musique]

- 19. Henri Matisse took the title of his painting *Luxe*, *Calme*, *et Volupte* from a refrain in this poem. For 10 points each:
- [10] Name this poem from *Les Fleurs du Mal* that entreats the addressee to come and live with the speaker in a land where all is "luxury, calm, and voluptuousness."

ANSWER: "Invitation to the Voyage" [or "Invitation to a Journey"; or "L'Invitation au Voyage"; or translations]

[10] This poet included "Invitation to the Voyage" and "The Albatross" in his collection Les Fleurs du Mal.

ANSWER: Charles Baudelaire

[10] This Baudelaire poem from *Fleurs du Mal* ends with an invocation to an "ardent sob" that rolls through the ages through the paintings of Rubens, Rembrandt, Goya, and other notable painters, whose scenes are likened to the title objects "lighted on a thousand citadels."

ANSWER: "The **Beacons**" [or "Les **Phares**"]

- 20. The lack of neuronal nitric oxide synthase in this disease leads to increased exercise fatigue, as its vasodilatory effects are not able to take place. For 10 points each:
- [10] Name this X-linked recessive syndrome sometimes presenting with dilated cardiomyopathy in which a lack of dystrophin causes sarcolemmal rupture and subsequent muscle wasting. One form of it is named for a French scientist.

ANSWER: Duchenne muscular dystrophy [or DMD]

[10] In this physical exam manouevre, a patient is asked to stand up from a sitting position without using nearby objects as aids. Due to proximal muscle weakness, a patient positive for DMD will use their arms to crawl up their legs to support themselves.

ANSWER: **Gower**'s Sign [accept anything with **Gower**]

[10] Another form of muscular dystrophy is caused by the absence of this protein's two-one-one form. This protein binds type IV collagen through fibronectin and entactin and also names the component of the basement membrane on which epithelial cells sit.

ANSWER: laminin

21. For 10 points each, answer the following about the history of the hometown of Nikola Pekovic, Bjelo Polje. [10] Bjelo Polje is a city in the northeast of this Eastern European country, which was joined with Serbia until declaring independence in 2006.

ANSWER: Montenegro

[10] Bjelo Polje's Church of St. Peter was where Miroslav of Hum copied out an illuminated manuscript of the Gospels, one of the most revered documents written in this language standardized by Cyril and Methodius.

ANSWER: <u>Old Church Slavonic</u> [or <u>Old Church Slavic</u>; accept <u>OCS</u>; prompt on <u>Slavonic</u>; prompt on <u>Slavonic</u>; prompt on <u>Cyrillic</u>]

[10] Bjelo Polje's proud literary tradition includes Avdo Mededovic, an oral poet whose songs were accompanied by the dulcet tones of this ubiquitous traditional single-stringed musical instrument of the Balkan region.

ANSWER: gusle [or iahuta; accept guslar (the name of the poets who use gusle)]