Ghetto Warz Caltech A

Jordan Boyd-Graber, Jim Karnesky, Jacob King, and Irene Ying

1. Unlike the much older yo-yo, this activity appeared around the late 1700s. The usual patterns in this activity include the manger, candles, tramlines, and diamonds. More elaborate ones include the clock, fish-in-a-dish, and Jacob's Ladder. It also takes two people together to make the most complicated patterns. FTP, name this children's game played with a piece of string, also the title of a book by Kurt Vonnegut.

ANSWER: Cat's Cradle

- 2. Two of these, when dimerized, create an olefin. They can add across double bonds using a cyclic flow of electrons. Their high reactivity means they are often stabilized by a metallic complex. An empty p-orbital and extra electrons means they can act both as electrophiles and nucleophiles. This also means they are excellent for making cyclopropanes. FTP, what is the general term for a divalent carbon atom with neutral charge and an unbonded lone pair?

 ANSWER: carbone, prompt on carbonoid
- 3. Philip VI halted at Sangatte hill, but the English refused to engage the French there, so the city was abandoned to the English. Acquiescing to the wishes of Walter Manny, Edward III decided to kill only a handful of the people of this town rather than everyone. These six people then dressed in sackcloth, tied halters around their necks, took the keys to the city in their hands, and left the fortress. FTP, identify this city whose Burghers were famously depicted by Rodin. ANSWER: Calais
- 4. This native of Kankakee had a friend by the nickname of "Associate One", among others. He first ran his family pharmacy, but went into politics in the 60's. It would take around forty years and a job change, before he was charged with fraud and corruption in December 2003. He was also known for imposing a moratorium on the death penalty and clearing out his state's death row. FTP, name this man succeeded by Rod Blagojevich as governor of Illinois. ANSWER: George Ryan
- 5. In the anticipation of a full description of it, the Jefferson Lab at Harvard was built entirely without nails to prevent interference. James Bradley's aberration experiment and George Airy's negative result with a water-filled telescope confirmed its drag effect. Another negative result, however, was inconsistent with these findings. FTP, identify this substance that was shown not to influence the propagation of light waves in 1887's Michelson-Moreley Experiment. ANSWER: luminiferous ether
- 6. Equipment used by them includes Tuyeres, slack tubs, hardie tools, swages, and mandrels, while techniques include scarfing, upsetting, and annealing. Fictional ones include Pea Eye from *Lonesome Dove* and Will Turner from *Pirates of the Caribbean*. Their profession was also romanticized in a poem by Longfellow. FTP, who are these professionals who 'think in the fire and strike while the iron is hot'?

ANSWER: blacksmiths

7. Martin Gardner calls it "a poem about being and non-being, an existential poem, a poem of existential agony." It centers around a group of adventurers following a blank map through eight fits as they pursue the title creature with (among other things) thimbles, forks, and soap. The butcher and beaver form an unlikely partnership and the Baker softly and suddenly vanishes away when, FTP, the title character of what Lewis Carroll poem turns out to be a Boojum?

ANSWER: The Hunting of the Snark

8. Block 10 of this site was under the direction of Carl Clauberg, who devised a means of chemically sealing fallopian tubes. The mix of languages here generated such words as "musselmanner"--those fated to die on the outskirts. Built in 1940, it started as a small prison for Poles, but was expanded to include Monowitz. FTP, name this concentration camp, the site of the largest mass extermination of the Jews.

ANSWER: Auschwitz-Birkenau

9. In his pamphlet *Two Faces*, we see the inklings of his idea of "Permanent Revolution," which says the Proletariat can do the work of the Bourgeois' democratic revolution in underdeveloped nations. His opponents wanted to focus on Russia and opposed his efforts as head of the Red Army to extend the sphere of the revolution; eventually, with the death of Lenin, Stalin's "One Nation" system became ascendant, he fled the USSR. FTP, name this Jewish Communist, represented by the pig Snowball in *Animal Farm*.

ANSWER: Leon Trotsky (accept early Lev Bronstein)

10. He is considered the chief God of the Mentakan civilization also known as the "Overseer." Another of his forms are Kamin, who had the power to prevent the drought of Kataan, Galen, a smuggler attempting to discover why a smuggling ring is stealing artifacts, and Dixon Hill, a private detective in San Francisco. FTP, identify this character whose most famous alter ego is Locutus of Borg.

ANSWER: Jean-Luc Picard

11. The protagonist of this work falls in love with a tall, thin woman with narrow hips and the chest of a boy who serves tea at a shop in Parliament Street. The young medical student finds Mildred vulgar and anemic, but sacrifices his studies for her as a result of the titular condition. Philip Carey was earlier studying to be a vicar, but gave up when he realized God wouldn't cure his club foot. FTP, identify this Bildungsroman by Somerset Maugham.

ANSWER: Of Human Bondage

12. Modernized versions of this art form generally do not use the original substrate. John F. Kennedy collected pieces, bringing it to public attention. Today tungsten carbide, dental drills, and sometimes lasers are used in lieu of knives and needles, which are what the whalers did. Popular motifs include birds, landscapes, and of course ships and the sea. FTP, name this mostly-American art form of inscribing and inking pictures onto pieces of whalebone and ivory.

ANSWER: scrimshaw

13. London's theory to explain van der Waals forces did not account for this man's measurements on colloids. The interaction between two neutral bodies could only be correctly described if one takes into account that light travels at a finite speed. With Dirk Polder, he explained that all fields - even the vacuum field - exert pressure on surfaces. FTP, what Dutch physicist theorized that thin metal sheets experience mutual attraction?

ANSWER: Hendrik Casimir Effect

- 14. This work gives the example of Heracleides and Phanosthenes, foreigners who were given command of armies because of their ability. Socrates argues that the titular character's ability is from divine inspiration; the "rhapsode" declares himself unequaled as a reciter and exponent of Homer. FTP, identify this Platonic dialog which does not concern a charged molecule. ANSWER: **Ion**
- 15. In Cryptonomicon, Professor Lawrence Waterhouse claims that whores can lower the quantity represented by this symbol. In general relativity, it describes models of spaces. In Greek numerals, it has a value of 200. More conventionally, it stands for the surface density of electric charges, and is also used to represent the alphabet of a language. FTP, name this Greek letter, most commonly seen in its capital form as notation for sums.

ANSWER: sigma

- 16. The artists behind this album had never sung before, but David Geffen believed in them. They were unlike the other overnight sensations such as Brad Hall, Rich Hall, Rich Little, and Little Richard, but they went mega-platinum while Krustophenia sat on the shelves. It won the Grammy for best hardcore thrash metal, despite having the same tune as *Boogie Oogie Oogie* from the Taste of Honey. FTP, identify this breakthrough album featured on *The Simpsons: Behind the Laughter*. ANSWER: Simpsons Boogie (accept Simpsons Christmas Boogie)
- 17. In 1870, he left Paris to avoid being drafted during the Franco-Prussian war. During his time in Estaque and Pontoise, he began to paint his first landscapes such as *The Wine Market* and *The House of Suicide*, which evidences the influence of Pisarro. He was one of the first artists to leave paintings, such as the *Apotheosis of Delacruix*, unfinished. FTP, identify this painter perhaps most famous for his *Mount Saint-Victoire* and *Bathers*.

ANSWER: Paul Cezanne

- 18. He passed the majority of his life relatively uneventfully, with all recorded events occurring after he was 600 years old. He committed incest while under the influence; he had easy access to booze since he used to plant vineyards. He was decent at handling birds, who took a geologic survey for him. FTP, name this man, son of Lamech and father of Shem, Ham and Japheth, who survived a deluge. ANSWER: Noah
- 19. This nation's traditional dress uses kniepkens to fasten a woman's blouse. The kniepkens are fashioned out of amber, which still washes up on this nation's shore and was a primary source of revenue for the Teutonic knights. This country's national epic is Lacplesis, or The Bear-Slayer. FTP, name this country whose flag is dark red with a thin white stripe, whose currency is the Lat, and whose capital is Riga.

ANSWER: Latvia

20. He took his friend upon his shoulders across the Tiber to save him from drowning. He later describes this friend as a Colossus who bestrides the narrow world; his friend in turn describes him as possessing a "lean and hungry look." He forges letters to Brutus saying that the people support the death of Caesar. FTP, identify this instigator of the plot against Caesar in Shakespeare's *Julius Caesar*.

ANSWER: Gaius Cassius

21. He defeated an unstoppable demon and went all the way across the universe in just three steps; this is all the more remarkable because he did this while in the form of a dwarf, an avatar known as Vamana. His home is Vaikuntha, and he rides Garuda. On his chest is the srivatsa, a sign of his immortality, and he wears the jewel Kaustubha around his neck. FTP, identify this Hindu protector deity, consort of Laksmi, of whom Krishna is an incarnation.

ANSWER: Vishnu

22. Marion Davies happened to be a confidant of the co-screenwriter, so it was added to the film. A man whose face we never see is assigned to determine what it means, but eventually says it "was something he couldn't get or something he lost, but it wouldn't have explained anything." At the end of the movie we see it engulfed in flames, bookending the first word of the film. FTP, identify this multifaceted enigma which could be Hearst's penis, a long forgotten sled, or Charles Foster Kane himself.

ANSWER: Rosebud

23. In re Hall says that these cannot be given if the subject has been described in a publication. Egbert v. Lippman says that a man who made corsets and showed them off to his friends could not be given one, although City of Elizabeth v. Pavement Company said it was okay to experiment before getting one. In general, one must demonstrate appropriate subject matter, novelty, utility, and non-obviousness before getting one. FTP, identify this legal right to exclusively use a scientific breakthrough.

ANSWER: Patent

- 24. It begins by the call for a vote on what the performance should be. A witch, the protectress of Leander, accidentally falls over and exposes herself, which cures the Prince of his melancholy. Fata Morgana's ire provokes her to curse the Prince to fall in love, but the objects of his love can only be opened in the presence of water. FTP identify this Prokofiev opera, a tri-citrus love affair. ANSWER: A Love for Three Oranges or L'Amour des trois oranges
- 25. A narrow pass between Lake Biwa and Nagoya, it is the only way to get to Sawayama and beyond to Kyoto and Osaka. On the morning of October 21, 1600, it was shrouded in heavy fog, making the advance of Ii Naomasa's division nearly invisible to the "Army of the West," as Ishida Mitsunari's forces were known. FTP, identify this battle which allowed Tokogawa Ieyasu to gain supremacy over Hideyoshi's vassals.

ANSWER: Sekigahara

26. A Kaehler one has an exterior derivative of the associated Hermitian metric that vanishes. Two of these are isospectral if they have the same eigenfrequency spectrum. A Poisson one has a bracket defined on its function space, and a Riemannian one has a metric tensor. FTP, what are these mathematical concepts defined a topological spaces which are locally Euclidean? ANSWER: manifold (prompt on early "drum")

2004 Ghetto Watz Calteci A

1. Name these parts of a compiler based on their usual roles, FTPE:

[10] The first step of a compiler, this stage checks tokens to verify that they are valid in the programming language.

ANSWER: lexical analysis

[10] This stage, after lexical analysis, applies regular expression rules to see if the strings of tokens are legal in the grammar for the programming language. It generates a namesake tree.

ANSWER: parsing

[10] This following stage creates a symbol table, performs type-checking, and binds variables and objects. It typically precedes code generation.

ANSWER: semantic analysis

2. Identify the following individuals who have nothing in common FTPE.

[10] In the 1988 film *Drowning by Numbers*, this is the name of Jason Edwards' character, the coroner's son who recites the rules of the folkloric "games" the characters play during the course of the movie.

ANSWER: Smut

[10] The only Mormon apostle to serve in the Senate, this Utah senator cosponsored a 1930 tariff act.

ANSWER: Reed Smoot

[10] He served as the UK's air minister during World War I and succeeded Botha as Prime Minister of South Africa; he served in this capacity with a minor interruption until 1948.

ANSWER: Jan Christian Smuts

3. Before and After for ten points each.

[10] The king of Macedonia conquers Persia and later tunnels out of a Luftwaffe POW camp with Steve McQueen.

ANSWER: Alexander the Great Escape

[10] After she sang hits like "Ain't No Mountain High Enough", he financed his own run for president with James Stockdale as his VP.

ANSWER: Diana Ross Perot

[10] He wrote 109 books in the 1800s including Ben's Nugget and later did 5 years for perjury after denying charges by Whittaker Chambers before HUAC.

ANSWER: Horatio Alger Hiss

4. Identify these literary houses, none of which are Usher, FTPE.

[10] Only allowed to read the New Testament while in exile, Dostoevski detailed his time in a labor camp in this work.

ANSWER: House of the Dead or Zapiski iz myortvogo doma

[10] Estaban and her granddaughter Alba decipher their family's history by reading Clara del Valla's journal in this work by Isabelle Allende.

ANSWER: House of the Spirits or La casa de los esp'ritus

[10] Abel, a young Native American, has to balance the demands of his peyote eating father and sex obsessed Anglo world in this work by N. Scott Momaday.

ANSWER: House Made of Dawn

- 5. Given some an artist and lyrics, identify the following similarly titled songs that don't necessarily go on forever, FTPE.
- [10] Louis Armstrong: Kiss me once and kiss me twice, then kiss me once again.

ANSWER: It's Been a Long, Long Time

[10] The Offspring: Superpowers flex their wings/Hold the world on puppet strings/Eagles will feed/While citizens bleed/That's always the way it goes/When will the world listen to reason?

ANSWER: It'll be a Long Time

[10] Bob Dylan: There's beauty in that silver, singin' river/There's beauty in that rainbow in the sky/But none of these and nothin' else can touch the beauty/That I remember in my true love's eye.

ANSWER: Tomorrow is a Long Time

- 6. There are just too many things out there in space for Greek and Roman mythology to name. Given the origin of the name and some scientific information, give the astronomical body FTPE.
- [10] Named after the Inuit goddess of the ocean, this large ball of ice and rock is slightly smaller than Pluto and could be recognized as the tenth planet.

ANSWER: Sedna

[10] In the Tongva myth, he sings the songs that bring the Sky Father and Earth Mother into existence. This object is currently the largest confirmed Kuiper Belt object.

ANSWER: Quaoar (kwah-o-wahr, but be lenient)

[10] In Vedic myth, he is the god-sovereign and the personification of heavenly authority. This was the first 1000 km scale Kuiper Belt object discovered.

ANSWER: Varuna

- 7. Given language from a legal document concerning booze, identify the legal statute for ten points each.
- [10] Let there be one measure for wine throughout our kingdom, and one measure for ale, and one measure for corn, namely "the London quarter."

ANSWER: Magna Carta

[10] No person shall on or after ... the eighteenth amendment ... goes into effect, manufacture, sell, barter, transport, import, export, deliver, furnish or possess any intoxicating liquor.

ANSWER: Volstead Act or National Prohibition Act (do not prompt on partial answers)

[10] We decree, establish and ordain at the behest of the Lords of Bavaria that ... no beer shall contain or be brewed with more ingredients than grain, hops, and water.

ANSWER: German Purity Law of 1516 or Reinheitsgebot

- 8. Answer the following questions about a family of Greek mythology that surprise, surprise wasn't the model of harmony.
- [10] Name the girl who was either sacrificed to Artemis or became a priestess of Artemis. She was daughter to Clytemnestra and Agemennon.

ANSWER: Iphigenia

[10] Name Iphigenia's brother, who killed his father.

ANSWER: Orestes

[10] Name Orestes' faithful friend, who was to carry Iphigenia's messages to Orestes.

ANSWER: Pylades

9. Identify these folk who got beaten up for impersonating religious figures, FTPE:

[10] He disguised himself as Ganesh the merciful to stop the marriage of Apu and Manjula, which incurred the wrath of the guests of the party.

ANSWER: Homer Simpson

[10] After being appointed archbishop, he slid into depravity and dressed in the habit of a nun in order to escape the assassins sent by this father, King Richard IV.

ANSWER: Black Adder or Edmund York

[10] He and his master attacks two monks escorting a lady and stole their clothes. He was sorely beaten, and his master was wounded in the ear.

ANSWER: Sancho Panza (accept either)

10. Identify these popes involved with the Great Schism for the stated number of points.

[5] For five, the last of the popes of French ancestry, he left Avignon for Rome in 1376 and died there, thus starting the Great Schism.

ANSWER: Gregory XI (prompt on "Pierre Roger de Beaufort")

[15] Five for one and fifteen for both, name the Roman made pope and the Swiss antipope elected at Anagi after the Avignon cardinals declared the Roman election invalid.

ANSWER: <u>Urban VI</u> (prompt on "Bartolomeo Prignano") and

Clement VII (prompt on "Robert de Geneve)

[10] For a final ten points, what subdeacon was elected by the Council of Constance to end the Great Schism?

ANSWER: Martin V (prompt on "Oddone Colonna")

11. Identify the following drinks favored by the hip-hoperati FTSNOP.

[10] For five, produced by Heileman and promoted by Billy D. Williams, this drink is best enjoyed cold right out of the 7-11 cooler and is poured on the curb for fallen homies.

ANSWER: Colt 45 (prompt on "Colt")

[10] For ten, in a song featuring P. Diddy, Busta Rhymes wants you to give him some money, give him some cars, and give him the bitch, but you can pass him this.

ANSWER: The Couvoisier

[10] Created especially for Alexander II, P. Diddy is rumored to be the world's largest purchaser of this drink, which is mentioned in the opening lines of Jay Z's Excuse Me Miss.

ANSWER: Cristal (accept Crist-OWL or Crist-ALL)

12. Expand the following "acronyms" from biology for five points per word.

DNA

ANSWER: Deoxyribonucleic Acid

TSH

ANSWER: Thyroid stimulating hormone

HOM

ANSWER: Homeotic

13. Identify these things related to the British conquest of India, FTPE:

[10] 1756, Siraj-ud-Dawlah took this city after a dispute about fortifications, thus starting conflict with the British.

ANSWER: Calcutta or Calicutt

[10] Robert Clive quickly retook the city and then destroyed the Nawab's forces at this battle in West Bengal; Clive was then known as the Baron of this place.

ANSWER: Plassy or Palashi

[10] For a final ten points, Clive supported this candidate for the Nawab, an Arab who made generous financial concessions to the English.

ANSWER: Mir Muhammad Ja'far Kahn

14. Given a description of a grade-school book, name the book FTPE:

[10] The title character of this book hails from Maine. She marries a widower with two children, and is known by two adjectives that are also in the title.

ANSWER: Sarah, Plain and Tall

[10] The title character of this book is abused by, and belongs to, Judd Travers. Marty has to save him, then lies and steals to provide for his new pet.

ANSWER: Shiloh

[10] Jess Aarons wants to be the fastest boy in fifth grade. Then he meets Leslie Burke and they construct the title wonderland for themselves.

ANSWER: Bridge to Terabithia

15. Identify the government official in charge of foreign affairs as of March 2004, given his or her title and country: 5 points each and a bonus 5 for all correct.

[5] Foreign Minister, Britain

ANSWER: Jack Straw

[5] Foreign Minister, Germany

ANSWER: Joschka Fischer

[5] Secretary of State, United States

ANSWER: Colin Powell

[5] Foreign Minister, China

ANSWER: Li Zhaoxing (prompt on Zhaoxing)

[5] Foreign Minister, France

ANSWER: Dominique de Villepin

16. How novel! A question about Peter and the Wolf that doesn't ask you to match the instruments with the animals. 5 for 1, 10 for 2, 20 for 3, 30 for all 4, answer the following about people who have narrated it.

[5] One recording which your question writer has been dying to find is narrated by this staple of classic horror films who also lent his voice to the animated How the Grinch Stole Christmas.

ANSWER: Boris Karloff

[5] Your writer has just put in an order for a recording narrated by this knight, who was in 6 films by David Lean.

ANSWER: Alec Guinness

[5] Better known for film roles in Man of La Mancha and El Cid, this actress did the narration on an album also featuring Mikhail Gorbachev and Bill Clinton!

ANSWER: Sophia Loren

[5] The only recording your author currently owns was narrated by this glam rocker who was the Goblin King in Labyrinth.

ANSWER: David Bowie

17. Name the murder ballad from a plot description FTPE.

[10] The narrator bemoans murdering his love for refusing to be his bride in this song, named for the riverside where the deed occurred.

ANSWER: The Banks of the Ohio

[10] Legend has it that the narrator of this song, most famously recorded by the Kingston Trio killed his victim for giving him a venereal disease. He was sentenced to hang

ANSWER: Tom Dooley (accept Tom Dula)

[10] This song, a historical account from 1808, tells of how John Lewis lured the title character to a place called Adams' Springs and killed her because she was carrying his illegitimate child

ANSWER: Omie Wise

18. Identify these Mongol rulers FTPE:

[10] This son and anointed successor to Genghis was responsible for the final conquest of Russia, but his death during a drinking binge halted the planned invasion of Western Europe.

ANSWER: Ogađai Kahn

[10] This Tesugei chieftan was elected as supreme ruler of the Mongols in a 1206 Khuriltai.

ANSWER: Genghis Kahn

[10] This advisor of Ogadai put an end to the old Mongol policy of razing conquered territory; his influence also established the Yuan dynasty's assimilation policy.

ANSWER: Yelu Chu-tsai

19. Name the artist from works, 30-20-10 basis.

[30] He painted a portrait of Erasmus of Rotterdam, who wrote him a letter of introduction before he left the Netherlands.

[20] Once in England, he became court painter to Henry VIII. In Henry's service, he painted Henry VIII, Jane Seymour, and Anne of Cleves.

[10] While attached to the court, he was also commissioned to paint two French ambassadors attached to the English court.

ANSWER: Hans Holbein the Younger

20. Identify the Dickens work from quotes FTPE.

[10] My meaning simply is that whatever I have tried to do in life, I have tried with all my heart to do well ... I have always been thoroughly in earnest.

ANSWER: David Copperfield

[10] Life is made of ever so many partings welded together, as I may say, and one man's a blacksmith, and one's a goldsmith, and one's a coppersmith. Divisions among such must come.

ANSWER: Great Expectations

[10] One Hundred and Five, North Tower.

ANSWER: A Tale of Two Cities

21. Given three nations, identify the single nation they all border, 5 for 1, 10 for 2, 20 for 3, and 30 for all 4.

[5] Burkina Faso, Algeria, and Senegal

ANSWER: Mali

[5] Tajikistan, Kyrgyzstan, and Pakistan

ANSWER: China

[5] Germany, Slovakia, and Russia

ANSWER: Poland

[5] Brazil, Argentina, and Paraguay

ANSWER: Bolivia

22. Answer some questions about the Journey to the West mythology FTSNOP.

[5,5] There were two non-humans tagging along on the trip. FFPE, give the animals.

ANSWER: Pig and Monkey

[10] For ten, give the name of either animal.

ANSWER: Sun Wu Kong or Zhu Ba Jieh

[10] Controlling the monkey was pretty hard. FTP, what piece of jewelry was used to tame the monkey?

ANSWER: Crown (accept equivalents)

23. Name the chemical, 30-20-10.

- [30] Its pKa is about 16, its molecular weight is about 46, and its NMR spectrum has three peaks, one of which disappears in a D2O shake.
- [20] Industrial-scale synthesis of diethyl ether begins with this compound.
- [10] It is a two-carbon alcohol.

ANSWER: Ethanol or Ethyl Alcohol

- 24. How well do you remember the prizes given out by Aztlan Cup? Identify these presidents of the Church of Jesus Christ of Latter Day Saints for ten points each.
- [10] This second president of the Church provided labor for the construction of the Transcontinental but boycotted the Promontory ceremonies.

ANSWER: Brigham Young

[10] This nephew and namesake of the Church's founder improved the public image of the Church. In 1981, his vision of the afterlife was added to the Doctrine of Covenants.

ANSWER: Joseph F. Smith (prompt on partial answers)

[10] This secretary of Agriculture under Eisenhower became church president in 1985 at 86 and oversaw the beginnings of the expansion campaign continued by Gordon B. Hinkley.

ANSWER: Ezra Taft Benson

- 25. Identify the epic from starting lines, 5-10-15:
- [5] "Sing, O goddess, the anger of Achilles son of Peleus, that brought countless ills upon the Achaeans."

ANSWER: Iliad

- [10] "Lo, praise of the prowess of people-kings / of spear-armed Danes, in days long sped..." ANSWER: **Beowulf**
- [15] "Arma virumque cano, Troiae qui primus ab oris/Italiam fato profugus Laviniaque venit" (ar-mah wee-rum-kway cah-no troy-ae kwee pree-moohs ahb ohr-ees/Ee-tahl-ee-ahm fah-to proh-foo-guhs Lah-wih-nee-ah-kway way-niht)

ANSWER: Aeneid