Round 7 2015 Potatoville Varsity

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Tossups

1. One deity with this name interrupted Black God's arrangement of the Milky Way when he blew the stars out of Black God's pouch. A figure with this name won Changing Bear as his wife. One deity with this name prompted Áltsé Hastiin and Áltsé Asdzáa, (*) First Man and First Woman, create the Fifth World. Along with either his younger brother Cirape or Puma, he created mankind by kicking a ball of mud. Often contrasted with Raven, for 10 points, name this Native American figure, a canine trickster god of many Native American mythologies.

Answer: Coyote

2. One of this author's protagonists is convinced to go to school at Waldzell, located in Castalia, by Music Master in a novel which sees Joseph Knecht become Magister Ludi.. In another novel by him, Kamala dies from a snakebite, and the protagonist meets the ferryman (*) Vasudeva. One of his protagonists is horrified when he sees Mozart use a modern radio. He created the saxophonist Pablo, who leads the protagonist into the Magic Theater, where Hermine is stabbed. For 10 points, name this creator of Harry Haller and of a character whose life closely follows the Buddha's; the German author of *Steppenwolf* and *Siddhartha*.

Answer: Hermann Hesse

3. During one event, this politician labeled striking workers a "peril to national safety" and ordered them to return to work. Those workers refused, so this politician fired over eleven thousand workers, leading to an FAA crisis. He signed the Boland Amendment, which his general (*) Oliver North violated. The Tower Commission was created during this man's administration, to investigae the Iran Contra affair. After a failed attempted assassination of this man, Alexander Haig took control before the arrival of Vice President H.W. George Bush. For 10 points, name the 40th President of The United States.

Answer: Ronald Reagan

4. This man was put on trial as a Roman citizen by Felix, Festus, and Agrippa and requested a slave's freedom from Philemon while in jail. He took part in the stoning of Stephen, and traveled with Barnabas after being healed by Ananias. This Pharisee wrote (*) "love is patient, love is kind" in his thirteen epistles to cities like Thessaly, Corinth, and Rome. He was struck blind by a vision on the road to Damascus, which led him to convert to Christianity. Most books of the New Testament are attributed to, for 10 points, what apostle, who was born Saul of Tarsus?

Answer: Saint <u>Paul</u> the Apostle (or the Apostle <u>Paul</u>; accept <u>Paul</u> of Tarsus; accept <u>Saul</u> of Tarsus before "Saul" is read)

5. The territories of Abkhazia, Nagorno-Karabakh, and South Ossetia in this zone claim independence but are generally not recognized. Main rivers in this range include the Terek and the Kuban in the north, and the Kura drains the south of the range into a landlocked sea. More water is lost through evaporation than runoff in this range's largest lake, (*) Lake Sevan. Mount Erebus in this range is the highest mountain in all of Europe. For 10 points, name this mountain range that borders Georgia, Russia, and Armenia, bordered to the east and west by the Caspian Sea and Black Sea.

Answer: Caucasus Mountains

6. A chromium atom is sandwiched between two of these in a compound discovered by Fischer and Hafner. The Bergman reaction produces derivatives of this compound, which with an ethynyl group makes up styrene. In one reaction, it is reduced to form a 1,4-cyclohexadiene. A fused pair of them is known as (*) naphthalene, and it participates in the Birch reduction. With its methylated form, it can form a near-ideal solution; besides toluene, other derivatives include a hydroxylated form of it called phenol. Reducing this compound fully yields cyclohexane. Friedrich Kekule proposed the structure of, for 10 points, what simplest aromatic compound with chemical formula C_6H_6 [C-6-H-6]?

Answer: **benzene** (accept $\underline{\mathbf{C}_6}\underline{\mathbf{H}_6}$ before it is read)

7. In the background of this painting, green shades are half-drawn over apartments windows above a shop window, in which a cash register can be seen. A yellow door in this painting opens toward a pair of silver canisters on a wooden (*) bar. An empty glass sits in front of an empty barstool several seats away from a man in a blue suit and fedora. A sign advertises cigars that are "only five cents" over the central building, where three people, including a woman in a red dress, are served by a man in white. For ten points, name this Edward Hopper painting of a late-night diner.

Answer: Nighthawks

8. Small groups of these people were called iwis, and ate plants similar to potatoes, called kumara. Many of these people were opposed to the sale of land to the pakeha, the white man. The first European to contact these people was Abel Tasman. In the 1850s, their namesake King Movement begun, which saw Potatau I get elected as the first king of these people. A series of fights amongst this people occurred after they acquired (*) guns from westerners in the Musket Wars. Translation differences between this people's language and English caused some issues following the signing of the Treaty of Waitangi with William Hobson. For 10 points, name this indigenous people of New Zealand.

Answer: Maori

- 9. The speaker of one of this author's poems exclaims "I was Manhattanese, friendly and proud!" who "saw many i loved in the street, or ferry-boat." This author wrote of a "pointed blossom rising delicate, with the perfume strong I love" and of the "great star" that "early droop'd." "The ship has (*) weather'd every rack, the prize we sought is won" in another poem by this author of "Crossing Brooklyn Ferry" and "When Lilacs Last in the Dooryard Bloom'd," who wrote "I celebrate myself" in another poem. For 10 points, name this man, whose works "O Captain! My Captain!" and "Song of Myself" appeared in his poetry collection *Leaves of Grass*.

 Answer: Walt(er) Whitman
- 10. One of the rare private homes designed by this man is located in Indiana and is called The Miller House. This man used thin shelled architecture to create both the Ingalls Rink at Yale and the Kresge Auditorium at MIT. Along with the Trans World Airways Flight Center at (*) JFK International this man also designed the main terminal at Dulles. The Knoll company hired this architect to design the space-age Tulip Chair. For 10 Points, name this Finnish architect who used St. Louis, Missouri as the site of the Gateway Arch.

Answer: Eero Saarinen

11. Galois [gal-WAH] theory can be used to determine if these functions have solutions by radicals. Gerolamo Cardano published solutions to specific cases of these functions. There is no general formula to find the solutions of these functions if they have degree greater than 4, according to the Abel-Ruffini theorem. Descartes' rule of signs gives the potential number of real roots for these expressions, and the (*) Fundamental Theorem of Algebra guarantees the number of complex solutions to these one-variable functions. For 10 points, identify these expressions that include variables raised to positive integer powers and multiplied by coefficients, like three X squared plus four.

Answer: polynomials

12. This author notes that "the greatest ruffian [...] is not altogether without" the ability to feel sympathy for others in the opening to one work, which speaks of the "sense of propriety." He described the advantages to trade by ship compared to overland trade in another work, which also talks about the economic motives of the (*) butcher, the brewer, and the baker and uses the example of a pin factory to discuss the advantages of the division of labor. For 10 points, name this Scottish author of *The Theory of Moral Sentiments* who used the metaphor of the "invisible hand" in his 1776 work *The Wealth of Nations*.

Answer: Adam Smith

13. This author said that the abolishment of the title religion would cause a stock market crash in his *An Argument Against Abolishing Christianity*. Three brothers representing different branches of Christianity-Peter, Jack, and Martin-split up in another work by this man. This author wrote (*) *A Tale of A Tub*. This satirist suggested that poor Irish families should sell their children to the rich to be eaten and wrote a novel about a doctor's travels in Lilliput and Brobdingnag. For 10 points, name this author of *A Modest Proposal* and *Gulliver's Travels*.

Answer: Jonathan Swift

14. One scene in this film features alternating shots between one of the main characters, and the little girl in a Georges Seurat painting. In another scene, one character sings the lyrics "Well shake it up baby now/Twist and shout" during a parade. One character in this film makes out with a character played by (*) Charlie Sheen. A monotone teacher repeats the absent title character's name while taking attendance. A Ferrari goes through a glass window after Cameron kicks it in this film. For 10 points, name this film starring Matthew Broderick as the title character who skips school and goes to Chicago.

Answer: Ferris Bueller's Day Off

15. The Gihae Eastern Expedition was an attack on these people by Korean forces. After the death of her husband, Ching Shih became a leader of these people. During a war against these people, Stephen Decatur destroyed the *Philadelphia*. (*) New Providence was a base for people in this profession, before Woodes Rogers offered a choice between pardon and death. The Brethren were a group of these people based out of Port Royal. Edward Teach was one of these people who sailed on Queen Anne's Revenge. For 10 points, name this occupation pursued by sailing thieves like Blackbeard.

Answer: pirates

16. Southern blotting locates specific sections of this molecule. Okazaki fragments are observed on the lagging strand on this molecule during replication, which begins with the action of this molecule's namesake helicase. The semiconservative replication of this molecule was proven in the (*) Meselson-Stahl experiment. Chargaff's rules conclude that every purine on this structure is paired with a pyrimidine. This molecule does not contain uracil, and transcription copies information from this molecule into messenger RNA. For 10 points, name this double-helix forming molecule that encodes genetic material, whose structure was proposed by Watson and Crick Answer: Deoxyribose Nucleic Acid

17. This man established the CEA to organize his country's nuclear research. This politician's decision to remove his country's gold reserves from the United States led to the Nixon Shock. After he was angered by what he perceived to be a special United States-Britain relationship, he withdrew his country from (*) NATO. During this man's presidency, he signed the Evian Accords which ended the Algerian War of Independence. This President sent police into the Latin Quarter in order to quell student protests in May of 1968. For 10 points, name this first President of the French Fifth Republic.

Answer: Charles de Gaulle

18. The protagonist of one of this author's plays gives a speech which compares the government's problems to untangling yarn. His characters Pisthetaerus and Hoopoe build a structure to block sacrifices from reaching the gods. In one of his plays, (*) Dionysus goes to Hades to rescue Euripides, where he hears the title animals chant "Brekekekex koax koax." In another of his plays, the women of Greece abstain from sex with their husbands to end the Peloponnesian War. For 10 points, identify this ancient Greek playwright of *Lysistrata*, *The Birds*, and *The Frogs*.

Answer: Aristophanes

19. The Czochralski [so-HRAL-ski] process produces single crystals for these devices, and they are primarily manufactured through molecular beam epitaxy. At the junction of a metal and one of these, there is a potential energy barrier named for Schottky ["SHOT-key"], and Anderson's rule quantifies a heterojunction of them when each constituent has a different (*) band gap. Depending on whether these devices have an excess or a deficiency of electrons, they are termed p-type or n-type, which means that they have been doped. These devices are found in transistors and diodes. Germanium and silicon are used in, for 10 points, what devices that have a conductivity between that of a conductor and that of an insulator?

Answer: semiconductors

20. This composer dismissed changes to one of his oratorios as "Frenchified trash," while another of his oratorios has soloists representing the archangels Gabriel, Raphael, and Uriel. This creator of the oratorios *The Seasons* and *The Creation* is also known for a symphony in which a ticking noise represents the title (*) "Clock," his 101st. This writer of the London Symphonies finished another symphony with the musicians leaving the stage one by one, while his Symphony No. 94 in G major has a sudden fortissimo chord in the second movement. For ten points, name this composer of the "Farewell" and "Surprise" symphonies. Answer: Franz Joseph Haydn

Bonuses

1. This psychologist ventured into linguistics with 1957's Verbal Behavior. For 10 points each,

[10] Name this behavioral psychologist who also wrote about a society run by "planners, managers, workers, and scientists" in *Walden Two*.

Answer: B(urrhus) F(rederick) Skinner

[10] This MIT professor of linguistics wrote a famous critique of Skinner's *Verbal Behavior*. He wrote the nonsensical, yet grammatically sound, sentence "Colorless green ideas sleep furiously" in his book *Syntactic Structures*.

Answer: (Avram) Noam Chomsky

[10] Chomsky's work was largely inspired by this logician and philosopher, whose "Two Dogmas of Empiricism" attacked logical positivism.

Answer: Willard van Orman Quine

2. When applied to Carnot cycles, it states that the maximum efficiency of a heat engine depends on the difference between the hot and cold reservoirs. For 10 points each,

[10] Identify this law that states that the total entropy of the universe is always increasing.

Answer: **Second** Law of **Thermodynamics**

[10] The Brownian ratchet was used to model this thought experiment, which attempted to disprove the Second Law of Thermodynamics. It involves two isolated systems of differing temperatures connected through a trapdoor.

Answer: Maxwell's demon

[10] The Second Law of Thermodynamics is rewritten as an inequality named for Duhem and this man in continuum mechanics, where it can be written in terms of specific entropy or internal energy. He also formulated the law itself.

Answer: Rudolf Clausius

3. This team drafted Phil Jackson in 1967. For 10 points each,

[10] Identify this team who drafted Patrick Ewing first overall in 1984. They won two championships in 1970 and 1973 under coach Red Holzman.

Answer: <u>New York Knicks</u> (accept either or both underlined portions; accept either or both of <u>New York Knickerbockers</u>)

[10] This current commissioner of the NBA was a Knicks fan while growing up. He succeeded David Stern as commissioner in 2014.

Answer: Adam Silver

[10] Adam Silver wrote an OP-ED in the New York Times entitled "Legalize and Regulate" this practice. The state of New Jersey was a subject of a lawsuit by the major sports leagues in the U.S. in 2012 after it attempted to legalize this practice.

Answer: **Betting on sports** (accept obvious equivalents)

4. This novel's setting is the plantation Tara. For 10 points each,

[10] Identify this novel in which Melanie is married to her cousin, and ultimately dies of a miscarriage. Scarlet O'Hara is the protagonist of this novel.

Answer: Gone with the Wind

[10] This American author won a Pulitzer Prize for her novel Gone With the Wind.

Answer: Margaret Mitchell

[10] Melanie was married to this love interest of Scarlet O'Hara. He is also the heir to the Twelve Oaks Plantation.

Answer: Ashley Wilkes (accept either or both names)

5. Type I diabetes targets and destroys beta cells in these regions. For 10 points each,

[10] Name these regions, home to alpha and gamma cells, where insulin and glucagon are produced. They are located in an endocrine organ and are named for a German anatomist.

Answer: islets of Langerhans

[10] The islets of Langerhans make up around 1% of the mass of this organ that regulates blood sugar. Its namesake duct connects to the bile duct and it can be found behind the stomach.

Answer: pancreas

[10] Insulin and glucagon secretion is inhibited by this hormone, which is produced in the delta cells of the pancreas. It is also secreted in the hypothalamus where it inhibits HGH.

Answer: somatostatin

6. This event occurred on fifth of November. For 10 points each,

[10] Name this event in which a group led by Robert Catesby attempted to overthrow James I.

Answer: <u>Gunpowder Plot</u>(Accept <u>Gunpowder Treason</u>, <u>Jesuit Treason</u>)

[10] This man, who is now burned in effigy yearly, was in charge of planting the explosives during the Gunpowder Plot. This man was selected due to his experience in the Spanish army.

Answer: Guy Fawkes

[10] Guy Fawkes participated in this war which pitted catholic Spain against an alliance of protestant countries. This war, which grew out of the Dutch Revolution, resulted in the formation of the Republic of the Seven Netherlands.

Answer: 80 Years War (or Dutch War of Independence)

7. This author detailed his experiences using hallucinogenic drugs in the book *The Doors of Perception*. For 10 points each,

[10] Name this author who wrote about William Farnaby washing up on the shores of the Kingdom of Pala in his novel *Island*.

Answer: Aldous **Huxley**

[10] In this Aldous Huxley novel, John the Savage hangs himself in a lighthouse. Bernard Marx loves Lenina Crowne in this novel.

Answer: Brave New World

[10] This drug is widely used throughout Brave New World. It is described as "Christianity without tears."

Answer: Soma

8. After the death of their father and uncle the mother of these people fled. For 10 points each,

[10] Name these brothers who defeated the Lords of the Underworld, and became the Sun and the Moon.

Answer: **Hero Twins** (accept **Xbalanque** and **Hunahpu** in either order.)

[10] The Hero Twins appear in this Mesoamerican people's mythology. This people's Popol Vuh describes how the world was created, along with the Hero Twins myth.

Answer: Mayan civilization

[10] The Lords of the Underworld were rulers of this location, the Mayan Underworld.

Answer: **Xibalba**

9. This composer's Piano Concerto in A minor was influenced by Schumann's work of the same name. For 10 points each,

[10] Identify this composer whose included *To Spring* and *Wedding Day at Troldhaugen* in a set of 66 piano pieces.

Answer: Edvard Grieg

[10] In addition to the aforementioned *Lyric Pieces*, Grieg wrote this collection of incidental music for a Henrik Ibsen play, which includes "Morning Mood," "Solveig's Song," and "Anitra's Dance."

Answer: **Peer Gynt** Suite(s)

[10] In the second act, Peer Gynt enters the hall of this monstrous troll; a Grieg piece depicts Peer Gynt entering, then being chased through, that hall.

Answer: The Mountain King (accept In the Hall of the Mountain King)

10. Wat Tyler led a revolt of these people. For 10 points each,

[10] Name this class of people who under feudalism tended farms, and were considered low class.

Answer: **Peasants**

[10] This man wrote *Against the Thieving*, *Lying Horde of Peasants* during the German Peasant's War, which partially began because of his works.

Answer: Martin **Luther**

[10] During the German Peasants' War, the peasants fought this organization, which was dedicated to the defense of the Holy Roman Empire. Due to a split caused by the protestant reformation, this group disbanded soon after.

Answer: **Swabian League**

11. In this novel, d'Artagnan has a brief affair with Milady de Winter, and proposes the motto "All for one, one for all." For 10 points each,

[10] Identify this novel about the title characters: Athos, Porthos, and Aramis.

Answer: The **Three Musketeers**

[10] *The Three Musketeers* was written by this French author. He also wrote *The Count of Monte Cristo*, and his son of the same name was also an author.

Answer: Alexandre Dumas, pere

[10] This novel takes place after *The Three Musketeers* and *Twenty Years After*. It is divided into three sections, one of which involves a plot to replace Louis XIV with his twin brother Philippe, *The Man in the Iron Mask*.

Answer: The Vicomte of Bragelonne: Ten Years Later (accept Le Vicomte de Bragelonne ou Dix ans plus tard)

12. The double dagger notation can indicate this state in a reaction. For 10 points each:

[10]Name this high-energy state that forms during a reaction. On a reaction coordinate diagram, this part of the reaction occurs at the local maximum.

Answer: **transition** state

[10] This is the input of energy needed to reach the transition state, and if the reactants do not receive enough of it, the reaction will not proceed. The Arrhenius equation contains this quantity in the numerator of the exponential.

Answer: activation energy

[10] This equation is equivalent to the Arrhenius equation for transition states, and contains terms for the enthalpy and entropy of activation. Like the Arrhenius equation, it also describes the temperature dependence of rate constants.

Answer: **Eyring**-Polanyi equation

13. This woman allegedly ferried water to troops during one battle For 10 points each,

[10] Name this woman who, after her husband was wounded, took control of a cannon during the Battle of Monmouth.

Answer: Molly Pitcher

[10] The Battle of Monmouth took place in this state, whose capital is Trenton.

Answer: **New Jersey**

[10] This general, who fought at the Battle of Monmouth, was also the General-Governor of India. After he surrendered at Yorktown, most of the fighting in the American Revolution stopped.

Answer: Charles Cornwallis

14. This man's most recent film is Django Unchained. For 10 points each,

[10] Name this man who directed both Kill Bill and Pulp Fiction.

Answer: Quentin **Tarantino**

[10] This actor, who has appeared in six Tarantino films, stars in Pulp Fiction. His character Jules Winnfield says bible verses before killing his victims.

Answer: Samuel L Jackson

[10] In Pulp Fiction, a key plot point is this object whose contents is never revealed. Roger Avery revealed in an interview that this object was meant to contain diamonds, but was given an orange glow to add mystery.

Answer: The **Briefcase**

15. The Euler line passes through a number of important points relating to these shapes; if one of these shapes features a 90 degree angle, the Euler line will bisect the longest side. For 10 points each,

[10] Name this polygon whose internal angles sum to 180 degrees.

Answer: triangle

[10] The Euler line passes through, among other points, the orthocenter of the circle, defined as the point where these three line segments meet.

Answer: **altitudes** of the triangle

[10] The incenter of a triangle will lie on the Euler line if and only if the triangle has this property, which is more restrictive than being equilateral.

Answer: **isosceles** triangle (prompt on "two sides are equal" or "two angles are equal;" accept if both of those properties are given)

16. Identify these politicians that represent or have represented the state of Minnesota in Congress, for 10 points each,

[10] This man hosted his namesake radio show on Air America until 2007. This two-term Democratic junior senator from Minnesota is a heavily backed the Affordable Care Act.

Answer: Alan "Al" Franken

[10] This Tea Party Congressman from the State of Minnesota ran for the Republican nomination for President in 2012. She did not seek re-election to the House of Representatives in 2014.

Answer: Michele Bachmann

[10] This politician held one of Minnesota's two Senate seats from 1964 to 1976, and later served as Jimmy Carter's Vice President.

Answer: Walter Mondale

17. This poem begins, "You do not do, you do not do." For 10 points each,

[10] Name this poem whose speaker notes "I began to talk like a Jew/I think I may well be a Jew" and that "Every woman adores a Fascist."

Answer: **Daddy**

[10] This reclusive American author wrote "Daddy." She wrote about the suicidal Esther Greenwood in *The Bell Lar*.

Answer: Sylvia Plath

[10] This Plath poetry collection contains "Daddy" as well as the poems "You're" and "The Munich Mannequins."

Answer: Ariel

18. This painting is illuminated by a lantern between a firing squad and a group of people. For ten points each,

[10] Identify this painting in which a man in a white shirt and yellow pants has his arms raised above his head. A Napoleonic firing squad takes aim at him and a group of people in this painting.

Answer: The Third of May, 1808 in Madrid

[10] *The Third of May, 1808* was painted by this Spanish artist. He depicted the Roman God Saturn eating his son in one of his *Black Paintings*.

Answer: Francisco Jose de Goya y Lucientes

[10] A cat sits in the background of this Goya work. A swarm of owls and bats attack a man at his desk in this work.

Answer: The **Sleep of Reason Produces Monsters**

19. In this city, Muhammad received the Quran from the angel Jibreel. For 10 points each,

[10] Identify this city in Saudi Arabia, the site of Muhammad's birth, and the destination of the hajj.

Answer: Mecca

[10] As a part of the hajj, participants will travel back and forth between these two mountains seven times. Ibrahim left Hajar between these two mountains.

Answer: Al-**Safa** and Al-**Marwah** (accept in either order)

[10] Hajar struggled to find water for her son Ishmael, until Ishmael scratched at the ground at what became this well, located between Safa and Marwah.

Answer: **Zamzam** Well

20. This period ended when Wu was conquered by the Jin. For 10 points each,

[10] Name this Chinese period of civil war, named for the number of factions. At one battle during this period, The Battle of Chibi, Cao Cao [Tsao-Tsao] was defeated by a combined force of Liu Bei and Sun Quan.

Answer: Three Kingdoms Period

[10] The Three Kingdoms period started after the fall of this dynasty. This dynasty names a large chinese ethnic group.

Answer: **Han** Dynasty

[10] The Han Dynasty fell after this peasant rebellion. This rebellion was named for its combatants colorful clothing

and was led by Zhang Jiang.

Answer: Yellow Turban Rebellion (accept Yellow Scarves Rebellion)