2015 SCOP Novice 6
Round 7

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Tossups

1. **The BOOMERanG experiment supports one entity described by this adjective, which implies a non-zero value of the cosmological constant. Jan Oort and Fritz Zwicky proposed another substance with this adjective to account for the fast rotation of galaxies. Ninety-five percent of the (*)** mass and energy in the universe has this property. For 10 points, name this word that signifies things that don't absorb electromagnetism, preventing them from being bright.
Answer: **dark**

2. **After the defeat of Nazi Germany, this man suggested attacking the Soviet Union in what became known as "Operation Unthinkable." While in Missouri, this man gave his "Sinews of Peace" speech, in which he coined the term (*)** "Iron Curtain" to denote areas dominated by Soviet influence, and in an address to parliament this man stated he had nothing else to give but "blood, toil, tears, and sweat." For 10 points, name this man who succeeded Neville Chamberlain as Prime Minister of the United Kingdom.
Answer: Sir Winston Leonard Spencer-**Churchill**

3. **A Chinese cult named for a "White" one of these objects predicted the coming of the Maitreya [mah-ee-tray-ah], and blue versions of these objects represented the sun in ancient Egypt, since they appeared during the day. This flower names Mahayana's most important (*)** sutra, as well as a meditation position in Buddhism, whose Eightfold Path is represented by this flower's eight petals. For 10 points, name this sacred water flower similar to a water lily.
Answer: sacred **lotus** (accept **padma**; accept **water lily** or **nymphaea** before "sutra" is read, as the Egyptian blue lotus is technically a water lily; prompt on "flower" before it is read)

4. **This man sculpted *John the Baptist Preaching* to a larger-than-life scale to quell rumors that he used a living model to sculpt his work *The Age of Bronze*. This creator of *The Burghers of Calais* sculpted intertwined figures in *The* (*)** *Kiss*, which he created to accompany his statue of a thoughtful Dante seated with his head on his hand, a part of this man's *Gates of Hell*. For 10 points, name this French artist, who sculpted *The Thinker*.
Answer: (François) Auguste (René) **Rodin**

5. **One member of this kingdom found at the Chernobyl site can convert radiation into usable energy, and the popular model organism *Saccharomyces cerevisiae* [sack-ah-roh-MY-seez sir-ah-VIS-ee-ay] also belongs to this kingdom. Members of this kingdom have bodies made from (*)** hyphae [HIGH-fee], reproduce via spores, and have cell walls that contain chitin [KYE-tin]. Decomposers such as molds are members of, for 10 points, which kingdom of organisms that also includes yeasts and mushrooms?
Answer: **fungus** (accept **Fungi**)

6. **This character narrates a novel in which he helps investigate Jake and Jubiter Dunlap, and another novel in which he flies to Africa in a hot air balloon. This character comes between the Shepherdsons and Grangerfords in one novel, in which he meets the (*)** Duke and the Dauphin. This boy runs away from the Widow Douglas by rafting down the Mississippi River with a former slave, Jim. For 10 points, name this character created by Mark Twain, a friend of Tom Sawyer.
Answer: **Huck**leberry **Finn**

7. *Browder v. Gayle* **ruled against this state's segregation laws, and the Anniston police looked the other way while the Ku Klux Klan attacked the Freedom Riders in this state. National City Lines was boycotted in this state's capital after the removal of a (*)** black woman from one of their buses. For 10 points, name this state in which Rosa Parks was removed from a Montgomery Bus and Martin Luther King Jr. wrote his "Letter from Birmingham Jail."
Answer: **Alabama**

8. **This value is the real part of all known non-trivial zeroes of the Riemann zeta function. Expressed in octal as 0.4, this is the reduced result of dividing the radius of a circle by the diameter. When this is used as an exponent, it is equivalent to taking the (*)** square root. For ten points, name this fraction, which is multiplied by width and height in the formula for area of a triangle and is equal to 0.4999, with the nine repeating.
Answer: one-**half** (accept equivalents like **point five** or **one over two**)

9. **People in this country eat buuz dumplings on Tsagaan Sar, New Year's Day. This country honored its adoption of Communism by renaming its capital "Red Hero." Nomads in this modern-day country have lived in gers, round (*)** yurt-like tents, since well before the reign of this nation's Genghis Khan. For 10 points, name this country with capital Ulaanbaatar, which is landlocked by China and Russia.
Answer: Blue **Mongolia** (accept **Mongol Uls**; accept **Monkh kohkh teneriin oron**; accept **Khokh Mongol**; accept descriptive answers similar to **Land of Blue Sky**; prompt on "Land of the Horse" or similar answers)

10. **The protagonist of this work loses his taste for milk and becomes upset when his mother and sister attempt to remove a portrait of a woman in a fur hat from his room; later, he interrupts a violin performance given by his sister, (*)** Grete [gray-tuh]. This work's protagonist is paralyzed when his father throws an apple that lodges in his carapace. Gregor Samsa transforms into a giant insect in, for 10 points, what novella by Franz Kafka?
Answer: The **Metamorphosis** (accept Die **Verwandlung**; do not accept Metamorphoses)

11. **After winning the Battle of Gaugamela [gow-gah-MAY-lah], this man's rival was killed by Bessus, and following the death of this man, his empire was split into factions by the Diadochi. This man dedicated a city in honor of his horse (*)** Bucephalus after the animal died at the Battle of the Hydaspes ["high"-DAS-peez]. This man won the Battle of Issus against Darius III, conquering Persia as a result. For 10 points, name this son of Philip II, a Macedonian conqueror.
Answer: **Alexander the Great** (accept **Alexander III** of Macedon; prompt on "Alexander")

12. **An equation named for this man describes the mean anomaly using the eccentric anomaly and eccentricity, and he described the "music of the spheres" in his *Harmonices Mundi*. He determined that equal areas are covered in equal amounts of time by a line between a (*)** planet and the Sun, and that all orbits are ellipses. For 10 points, name this astronomer who worked for Tycho Brahe and formulated three laws of planetary motion.
Answer: Johannes **Kepler**

13. **This man entered a press conference singing "Zip-a-dee-doo-dah" one day after an emotional meeting with Pope Francis. He averted a government shutdown by passing a continuing resolution that did not defund (*)** Planned Parenthood, shortly after announcing his planned resignation. For 10 points, name this Ohio representative, who was replaced by Paul Ryan as Speaker of the House in October 2015.
Answer: John Andrew **Boehner**

14. **A worker in this play claims to build stronger structures than a mason, shipwright, or carpenter, and a mother in this play drinks poison prepared by Laertes and her husband. This play's title character calls (*)** Polonius a fishmonger after his father accuses Claudius of murder, and he mourns Ophelia after questioning whether it is better "to be or not to be." For 10 points, name this Shakespeare play about the title prince of Denmark.
Answer: The Tragedy of **Hamlet**, Prince of Denmark

15. **A CollegeHumor parody of this song notes "in social class we're still on top" due to the status of those at Downton Abbey. This song's music video begins with a woman in pink heels and a fur coat walking down the street, and stars a man rocking a (*)** white fedora and salmon suit. That singer repeats "girls hit your hallelujah" before challenging, "don't believe me just watch." For 10 points, name this Mark Ronson hit featuring Bruno Mars, who describes the title groovy district.
Answer: **Uptown Funk**

16. **This god transformed Hyacinth into a flower and was the father of Asclepius, the god of healing. With his sister, this god killed Niobe's children after she insulted this god's mother. He was rejected by the nymph Daphne, and he was the son of (*)** Leto and Zeus. This god created the first lyre, and is sometimes called Phoebus in reference to his association with light. For 10 points, name this twin of Artemis, the Greek god of prophecy and music.
Answer: Phoebus **Apollo** (accept **Apollon**)

17. **In two works by this author, Leo attempts to build a Happiness Machine and an automated house functions after its inhabitants are vaporized. Douglas Spaulding's grandmother makes the title (*)** *Dandelion Wine* in one work by this author of *The Martian Chronicles*, who wrote about a man who works for Captain Beatty as a fireman who burns books. For 10 points, name this author who wrote about Guy Montag in Fahrenheit 451.
Answer: Ray Douglas **Bradbury**

18. **A proposed amendment for this agreement would have freed slaves "at the age of twenty-five" and was named for James Tallmadge. Although it was already effectively repealed, this agreement was declared unconstitutional in the (*)** Dred Scott case, and under this agreement Maine was admitted to the union. For 10 points, name this agreement, which established a line along the northern boundary of a namesake slave state.
Answer: **Missouri Compromise** (accept **Compromise of 1820**)

19. **This composer wrote a challenging piano sonata for Count Waldstein and used five alternating pianissimo E and D-sharp notes to open a bagatelle in A minor. One of this composer's piano sonatas has a "quasi una fantasia" theme, representing a (*)** reflection off Lake Lucerne. For 10 points, name this composer of "Für Elise" and the *Moonlight Sonata*, a German composer who was deaf when he composed his ninth and final symphony.
Answer: Ludvig van **Beethoven**

20. **The production of substances with this property is predicted by Zaitsev's rule, and sulfur has this interaction in a thial group. Oxygen forms one of these with carbon in carbonyls, as seen in acetone and formaldehyde. (*)** Alkenes are defined by having this structure, represented in Lewis diagrams by an equals sign. For 10 points, name this type of covalent bond that requires four valence electrons, and that is stronger than a single bond.
Answer: **double bond**ing (accept **carbon-carbon double bond** until "thial" is read; prompt on "bond;" until "thial")

Bonuses

1. This event occurred in the wake of the death of the reformer Hu Yaobang. For 10 points each,
[10] Name this set of student protests crushed by Deng Xiaoping in the June Fourth Massacre. During these protests, students constructed the "Goddess of Democracy."
Answer: **Tiananmen Square** protests (accept 19**89 Democracy Movement**)
[10] The Tiananmen Square protests occurred in this capital of the People's Republic of China.
Answer: **Beijing** (accept **Peking**)
[10] In a highly symbolic photo taken during the Tiananmen Square protests, an unknown protester stood in front of a line of these vehicles.
Answer: Type 59 **tank**s

2. This holiday is also called "dies cinerum" [dee-ays see-nay-room] because of a mark worn to indicate sorrow and penance. For 10 points each,
[10] Name this holiday, which follows a "Fat" day of feasting and begins the season of Lent.
Answer: **Ash Wednesday**
[10] Lent begins with Ash Wednesday and concludes with Holy Saturday, the day before this Christian holiday. This springtime holiday commemorates the resurrection of Jesus, and is celebrated in modern times with colorful eggs.
Answer: **Easter** Sunday (accept **Pasch**a)
[10] This Christian holiday takes place fifty days after Easter Sunday. Derived from the Jewish holiday Shavuot, it commemorates the day the Holy Spirit descended on the disciples.
Answer: **Pentecost**

3. This group of elements is highly reactive with water; the lightest ones make smoke and the heavier ones explode. For 10 points each,
[10] Name this group, whose ions all have a charge of +1 [plus one], allowing these elements to readily bond with halogens.
Answer: **alkali** metals (accept Group **I**A ["one A"] or **one**; do not accept "alkaline earth metals")
[10] This alkali metal, that is lighter than potassium and heavier than lithium, can bond with chlorine to form table salt.
Answer: **sodium** (accept **Na**)
[10] One can differentiate alkali metals by performing this procedure that typically uses platinum wires for holding samples. This test results in different colors, such as orange for sodium and red for rubidium.
Answer: **flame** test

4. For 10 points each, answer the following about an early author of science fiction.

[10] This French author wrote about missions to the unexplored reaches of the world in *Journey to the Center of the Earth* and *Twenty Thousand Leagues Under the Sea*.

Answer: Jules Gabriel **Verne**

[10] Verne also wrote a novel about English adventurer Phileas Fogg, who makes a bet that he can perform this feat in only eighty days.

Answer: travel **around the world** (accept clear equivalents, such as go **around the world** or **circumnavigate the globe**; accept **Around the World** in Eighty Days)

[10] Phileas Fogg travels around the world with this French manservant, who poses as a burning corpse to save Aouda [ah-oo-dah] from performing sati [sah-tee].

Answer: Jean **Passepartout** [pass-par-TOO]

5. This conflict was part of the larger Seven Years' War. For 10 points each,

[10] Name this North American war in which Britain defeated a European rival for control of Canada.

Answer: **French and Indian** War

[10] During the capture of the capital of this province, James Wolfe died on the Plains of Abraham. Despite the victory, this Canadian province still maintains its French roots.

Answer: **Quebec**

[10] After the French and Indian War, this Ottawa chief rebelled against British policies near the Great Lakes. This chief won the Battle of Bloody Run but had earlier failed to take Fort Detroit.

Answer: **Pontiac** (accept **Obwandiyag**)

6. The head-to-tail and parallelogram methods are two ways of geometrically adding these quantities. For 10 points each,

[10] Name these physical quantities like velocity and displacement that have both magnitude and direction.

Answer: **vector**s (accept **Euclidean vector**; accept **geometric vector**; accept **spatial vector**)

[10] To calculate an object's weight vector on Earth, you must multiply its mass times this constant. It has a value of about 9.8 meters per second squared directed towards Earth's center.

Answer: **gravitational acceleration** (accept **acceleration** due to **gravity**)

[10] Gravitational acceleration will cause a satellite orbiting the Earth to experience this type of force directed towards the center of a circular path. A roller coaster traveling through a loop also experiences this force.

Answer: **centripetal** force (do not accept "centrifugal force")

7. Name the following about Pixar films, for 10 points each.

[10] The cowboy Woody struggles to see eye-to-eye with Buzz Lightyear in this first in a series of Pixar movies about the inhabitants of Andy's room.

Answer: **Toy Story**

[10] Bob Parr and his family of superheroes must band together to take down superfan-turned-evil-genius, Syndrome, in this Brad Bird-directed film.

Answer: The **Incredibles**

[10] Patton Oswalt voiced this rodent, the protagonist of *Ratatouille*. In the film, this character uses Linguini as a puppet to cook at the restaurant formerly headed by Auguste Gusteau.

Answer: **Remy**

8. This man included the chapters "Why I Am So Wise" and "Why I Write Such Good Books" in his autobiography, *Ecce Homo*. For 10 points each,

[10] Identify this German philosopher who wrote about the übermensch in his book *Thus Spoke Zarathustra*.

Answer: Friedrich Wilhelm **Nietzsche**

[10] Nietzsche wrote a controversial book about, and named for, this false messianic figure from the New Testament, which will be opposed during Jesus' second coming.

Answer: **antichrist**

[10] In *The Gay Science*, Nietzsche coined this three-word term to show the lack of credibility that a deity has in terms of morality.

Answer: **God is dead** (accept **Gott ist tot**)

9. In one of this author's novels, Lucy Steele's former fiancé, Edward Ferrars, marries Elinor, and Colonel Brandon proposes to Marianne. For 10 points each,

[10] Name this British author who wrote about the Dashwood sisters in *Sense and Sensibility*. George Knightley marries the title matchmaker in this woman's novel *Emma*.

Answer: Jane **Austen**

[10] In this Jane Austen novel, Lydia elopes with George Wickham, and Lady Catherine does not want Elizabeth Bennet to marry her nephew, Mr. Darcy.

Answer: **Pride and Prejudice**

[10] John Thorpe tries to woo Catherine Morland in this other Jane Austen novel. Catherine instead ends up with Henry Tilney, who lives in the title Gothic building.

Answer: **Northanger Abbey**

10. In this piece, eleven timpani beats occur in order to begin "The Glorification of the Chosen One." For 10 points each,

[10] Name this ballet originally choreographed by Vaslav Nijinsky. It ends with the title pagan sacrifice, and it caused a riot at its Parisian premiere in 1913.

Answer: The **Rite of Spring** (accept Le **Sacre du Primtemps**; accept **Vesna svyashchennaya**)

[10] *The Rite of Spring* was written by this composer of *The Firebird* and *Petrushka*.

Answer: Igor **Stravinsky**

[10] The first part of *The Rite of Spring*, the "Adoration of the Earth," begins with a solo for this low pitched, double reed woodwind instrument.

Answer: **bassoon**

11. For 10 points each, give the following related to the fact that sine of zero equals zero.

[10] Therefore, the function f of x equals sine of x passes through the point (0,0) ["zero comma zero"]; that point in the Cartesian plane is given this name.

Answer: **origin**

[10] Sine of x is tangent to this line at the origin. Reflecting a relation over this line can be done by swapping the x and y coordinates in every ordered pair; that is, the point (5,0) reflects over this line to the point (0,5).

Answer: **y equals x** (accept **x equals y**)

[10] The graph of sine of x has this type of point at the origin because the concavity of the graph changes. In sine's case, the graph is concave up immediately to the left of the origin, then concave down immediately to the right of the origin, so the origin is one of these points.

Answer: **inflection** point

12. For 10 points each, answer the following about American poems that concern animals.

[10] In this William Carlos Williams poem, "so much depends / upon" the title object, which is "glazed with rain / water / beside the white / chickens."

Answer: The **Red Wheelbarrow**

[10] In this poem, the narrator's "horse must think it queer / to stop without a farmhouse near" since the narrator has "miles to go before I sleep."

Answer: **Stopping by Woods on a Snowy Evening**

[10] This poet of "Stopping by Woods on a Snowy Evening" wrote that hunters "would have the rabbit out of hiding / to please the yelping dogs" in his poem "The Mending Wall."

Answer: Robert Lee **Frost**

13. This man built a workshop called Taliesin ["tally"-ESS-in] West following the destruction of his Wisconsin home. For 10 points each,

[10] Name this American architect, who created the Prairie Style home "Fallingwater" for the Kaufmann family.

Answer: Frank Lloyd **Wright** (accept Frank Lincoln **Wright**)

[10] Wright made a hypothetical design for one of these structures that he called the Illinois. The Illinois would have been twice as tall as the Burj Khalifa, which is currently the largest example of these very tall structures.

Answer: **skyscraper**s (accept clear equivalents, such as **tower block** or **high rise**)

[10] Wright was mentored by this man, who is sometimes called the "father of the skyscraper." He designed the Wainwright Building and the Carson Pirie Scott Building.

Answer: Louis Henri **Sullivan**

14. This man proposed the "Share Our Wealth" plan to combat the Great Depression. For 10 points each,
[10] Name this politician known as "the Kingfish" who wrote *My First Days in the White House* before being assassinated by Carl Weiss.
Answer: Huey P(ierce) **Long**
[10] In *My First Days in the White House*, Long wrote that he would make this incumbent Democratic President his Secretary of the Navy.
Answer: **F**ranklin Delano **Roosevelt** (accept **FDR**; prompt on "Roosevelt")
[10] Huey Long was the Governor of this state. During his tenure he made numerous improvements to New Orleans.
Answer: **Louisiana**

15. This substance's pH level is maintained by a carbon dioxide and bicarbonate buffering system. For 10 points each,
[10] Name this red bodily fluid that transports oxygen and other life-sustaining compounds throughout the body. It contains erythrocytes, leukocytes, and platelets, which clot it.
Answer: **blood**
[10] This protein within red blood cells carries oxygen in its namesake iron-containing group. At low pressures, it is less saturated with oxygen than the similar myoglobin.
Answer: **hemoglobin**
[10] Blood coagulation requires this fat-soluble vitamin that also allows calcium ions to bind to bone.
Answer: Vitamin **K**

16. The end is nigh! Identify some future disasters in North America for 10 points each.
[10] A 2015 *New Yorker* article detailed the coming destruction of Oregon and British Columbia due to an imminent earthquake in this subduction zone, named for a northwestern mountain range.
Answer: **Cascadia** Subduction Zone (prompt on "Cascade Mountains")
[10] A series of enormous eruptions occurring over millions of years have originated from the supervolcano in this US national park, mostly found in Wyoming.
Answer: **Yellowstone** National Park
[10] The San Andreas fault is projected to cause the separation of this currently continental American state from the mainland, forming an island that could travel north to Alaska.
Answer: **California**

17. This Tsar founded the Streltsy. For 10 points each,
[10] Name this Russian Tsar who controlled the *Oprichnina* and murdered his own son. This Tsar, whose cruelty is marked by his epithet, was also responsible for the massacre of Novgorod.
Answer: **Ivan the Terrible** (accept **Ivan IV** Vasilyevich; accept **Ivan Grozny**)
[10] Ivan the Terrible was responsible for the conquest of this northern Russian region. This region, which composes the majority of Russia, is largely a sparsely populated tundra.
Answer: **Siberia**
[10] In celebration of conquering Kazan, Ivan the Terrible constructed this colorful cathedral. According to legend, Ivan had the architect of this structure blinded to preserve its unique beauty.
Answer: **Saint Basil's** Cathedral (accept The **Cathedral of Vasily the Blessed**; accept **Cathedral of the Intercession of the Most Holy Theotokos on the Moat**; accept **Pokrovsky** Cathedral)

18. For ten points each, name the following bodies of water in northern Europe.
[10] The isles of Jersey and Guernsey are in this channel, whose narrowest point is between the cliffs of Dover and the mainland city of Calais.
Answer: **English** Channel
[10] The English Channel connects this sea, found between Britain and Scandinavia, to the shores of France.
Answer: **North** Sea
[10] The North Sea, in turn, is connected by the Skagerrak and Kattegat to this sea on whose shores Estonia, Latvia, and Lithuania lie.
Answer: **Baltic** Sea

19. Volcanoes have left their mark on the world's mythology. For 10 points each,
[10] Name the Hawai'ian goddess of volcanoes, the daughter of Haumea.
Answer: Tutu **Pele** (accept Madame **Pele**)
[10]According to legend, the Yatsugatake Mountains were torn down for being taller than this volcano. This volcano, located on the island of Honshu, is Japan's tallest mountain.
Answer: Mount **Fuji** (accept **Fuji**yama; accept **Fuji**-sama or **Fuji**-san)
[10] It is theorized that the Minoan volcanic eruption may have caused the sinking of this legendary city, which Plato claimed had been sunk as punishment for trying to conquer Athens.
Answer: **Atlantis**

20. This author wrote about the Vicario brother's murder of Santiago Nasar in *Chronicle of a Death Foretold*. For 10 points each,
[10] Name this Colombian author who wrote about seven generations of the Buendia family in his magic realist novel *One Hundred Years of Solitude*.
Answer: Gabriel **Garcia Marquez** (prompt on "Marquez")
[10] In *One Hundred Years of Solitude*, Aurelio and Amaranta's baby is born with the tail of this animal. One of these animals named Wilbur appears in EB White's novel *Charlotte's Web*.
Answer: **pig**s
[10] The baby with a pig's tail in *One Hundred Years of Solitude* is carried off by these insects. The 12th chapter of Thoreau's *Walden* is about a "Battle" of these insects.
Answer: **ant**s