## 2015 SCOP 6 Middle School Edition

## Replacements

Waleed Ali • Alston Boyd • Brad Fischer • Clare Keenan • Alec Krueger • Mike Laudermith Elissa Pape • Anna Phillips • Allison Salach • Andrew Salij • Kristin A. Strey • Tyler Vaughan Morgan Venkus • Mike Withey • Michael H. Wong

## **Tossups**

1. This novel ends with the *Heart of Gold* going to the Restaurant at the End of the Universe after hyper-intelligent mice decide to make up a Question to explain why the Answer to "Life, the Universe, and Everything" is (\*) forty-two. For 10 points, name this Douglas Adams novel, in which Ford Prefect bums rides through the universe researching for the title guidebook.

Answer: The Hitchhiker's Guide to the Galaxy (prompt on "H2G2")

2. In a legend from this country, a poodle helps a man woo Gretchen after it transforms into Mephistopheles. In a folktale from this country, a blind prince is reunited with a woman who had been imprisoned by Dame Gothel. Thomas Mann was a writer from this country, as were (\*) Johann Goethe [GUR-tuh] and two brothers who collected stories like "Rapunzel" and "Cinderella." For 10 points, name this European country, the home of the Grimm brothers.

Answer: **Germany** 

- 3. This author wrote about Trigorin and Nina in one play, and about Serebryakov's attempted murder at the hands of the title character in another. In another play by this man, Madame Ranevski sells the title (\*) location to Lopakhin. A dramatic foreshadowing device is called this man's "gun." *Three Sisters* and *The Seagull* are by, for 10 points, what Russian playwright, who wrote *Uncle Vanya* and *The Cherry Orchard*? Answer: Anton Pavlovich Chekhov
- 4. This measure can be estimated by observing Cepheid [SEH-fee-id] variables in the standard candle method. The apparent motion of nearby stars during Earth's revolution yields another type of this quantity called "stellar parallax." Barnard's Star has 1.8 (\*) parsecs of this measure, and there is one Astronomical Unit of this measure between the Sun and Earth. For 10 points, name this quantity that can be measured in light-years. Answer: distance
- 5. Oxygen forms one of these with carbon in carbonyls, as seen in acetone and formaldehyde. Alkenes are defined by having this structure, which are 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 bonding (prompt on "bond" until it is read)

6. An example of these atoms for hydrogen is the deuterium in heavy water. Another example of these elements is denoted "fourteen" and is used in (\*) carbon dating, and the atomic mass reported on a periodic table is a weighted average of these chemical variants. For 10 points, what is the name given to elements with the same number of protons but differing numbers of neutrons?

Answer: isotopes

- 7. In *Harris v McRae*, it was ruled that states with Medicaid were not required to pay for this action without federal reimbursement; that decision was strengthened by the Hyde Amendment, which prohibited government (\*) funding for this action. In an attempt to perform this action, Norma McCorvey claimed she was raped before adopting a pseudonym and filing a lawsuit. For 10 points, name this action which was legalized by *Roe v Wade*. Answer: <u>abortion</u> (accept word forms; accept descriptions like "<u>terminating pregnancy</u>")
- 8. Many members of this group left the Church of England during the "Great Ejection", and one member of this group coined the term "City upon a Hill" in his sermon A Model of Christian Charity. During the Free Grace controversy, (\*) Anne Hutchinson's opposition of John Winthrop led to her expulsion from this group. The Massachusetts Bay Colony was founded by, for 10 points, what group of Protestants named for their desire to cleanse the church.

Answer: **Puritans** (prompt on Protestants)

9. An opera with this quality was edited by Franco Alfano, whose work was not preserved when Arturo Toscanini premiered it. Franz Sussmayr worked on another of these works, Mozart's (\*) Requiem mass. For 10 points, name this quality that names Franz Schubert's eighth symphony, a work that was left with only two movements?

Answer: works left <u>unfinished</u> by the composer (accept descriptions such as "<u>incomplete</u> musical works")

10. This brand paid tribute to its founding by issuing Johnson City Gold. Early packaging claimed that this product "tickled your innards" and featured the mascot Willy the (\*) Hillbilly. Coconut water is found in this product's Kickstart line, and other variations include LiveWire and Baja Blast. For 10 points, name this lemon-lime Pepsi product that competes with Coke's Mello Yello.

Answer: Mountain **Dew** 

## **Bonuses**

1. One animal in this poem "leaps on the back of the wind / and floats downstream to the current's end" while the other "can seldom see through / his bars of rage". For 10 points each

[10] Identify this creature who titles a poem that claims "I Know Why" this animal "Sings."

Answer: I Know Why the **Caged Bird** Sings

[10] In the poem, "the caged bird sings of" this subject, indicating the bird's desire to escape from its cage.

Answer: **freedom** 

[10] "I Know Why the Caged Bird Sings" was written by this African-American author and poet, who read her "On the Pulse of the Morning" at Clinton's inauguration.

Answer: Maya Angelou (accept Marguerite Annie Johnson)

2. Some books use animal societies to model human ones. Answer some questions about surprisingly political animals, for 10 points each.

[10] In this Richard Adams novel, a group of rabbits leave their warren and search for a new one. On the way, they encounter socialist and totalitarian rabbit communities before creating a democracy.

Answer: Watership Down

[10] In this George Orwell novel that parodies the Russian Revolution, a group of pigs lead a barnyard revolt.

Answer: **Animal Farm** 

[10] In *Animal Farm*, this bird represents the church. The pigs initially distrust this character's tales of Sugarcandy Mountain, but as conditions on the farm worsen, they welcome him back.

Answer: Moses (prompt on "raven")

3. After the *Antelope* is shipwrecked, some pretty weird things start to happen to Lemuel Gulliver. Answer some questions about his travels, for 10 points each.

[10] Gulliver's first stop is this island, where the inhabitants are unusually small. Residents of this island war with their neighbors on Blefuscu over the proper way to crack an egg.

Answer: Lilliput

[10] Gulliver later finds himself in this land, which is ruled by giants who keep Gulliver as a pet.

Answer: **Brobdingnag** 

[10] Gulliver's final adventures are with the filthy and brutish Yahoos, who perform manual labor for an intelligent, race of Houyhnhnms [h-WIN-hims] that resemble this real-life animal.

Answer: **horse**s

4. By definition, eukaryotic cells must have at least one of these organelles. For 10 points each,

[10] Name this organelle surrounded by a double envelope that contains the bulk of a cell's genetic material.

Answer: nucleus

[10] During cell division the genetic material in a nucleus condenses into these paired structures that are made of DNA wrapped around proteins.

Answer: **chromosome**s

[10] A normal, diploid human cell has this many pairs of chromosomes, including the sex chromosomes.

Answer: 2

5. Methionine is always the first one of these molecules added at the ribosome. For 10 points each,

[10] Name these organic molecules that have a side chain bonded to the central carbon. They are the building blocks of proteins.

Answer: amino acids

[10] The amino group of an amino acid bonds to a carboxyl group to make the covalent forms of this structure, which connects atoms in a molecule.

Answer: covalent **bond**s

[10] Hydrolysis can cleave a peptide bond into its amino acid components by adding a molecule of this substance, symbolized H2O.

Answer: water

6. Peptides and steroids are examples of these signaling molecules. For 10 points each,

[10] Name this group of messenger molecules that regulate metabolism, kidney function, and pregnancy.

Answer: hormones

[10] Known as the "master gland," this pea-sized gland at the base of the brain is responsible for producing human growth hormone and prolactin.

Answer: pituitary gland (accept hypophysis)

[10] The pituitary gland is a part of this bodily system, which release hormones to regulate the body's growth and functions.

Answer: **endocrine** system

7. For 10 points each, answer the following about the Hertzsprung-Russell diagram.

[10] The diagram plots these celestial objects in a two-dimensional diagram, using absolute magnitude and color as the variables for the axes. An arc along the bottom left of the H-R diagram includes white dwarves, a small, dense type of these celestial bodies.

Answer: stars

[10] This type of star, located near the top of the H-R diagram, is the most luminous. These stars are named for their extremely large radius and include Rigel [RYE-jul], Antares [an-TAIR-eez], and Betelgeuse [BEET-il-jooz].

Answer: **supergiant**s (do not prompt giant stars)

[10] The majority of stars on the H-R diagram fall within this region of the graph. This band includes the Sun and forms a visible downward slant in the middle of the diagram.

Answer: main sequence stars

8. For 10 points each, give the following about the letter B in mathematics.

[10] Linear equations are often written in y equals m x plus b form; the m represents the slope of the line, while the b represents this value.

Answer: <u>y-intercept</u> (accept descriptions that describe "the y-coordinate of the point where the line crosses the y-axis" or "the y-coordinate of the line at the point where x equals 0")

[10] As it's commonly written, b is squared then subtracted by 4 times a times c in the discriminant of this formula, which will find the roots of a certain type of polynomial function.

Answer: **quadratic** formula

[10] In this number system often used in computing, B represents the decimal number eleven, and B0 ("B zero") represents the decimal number one hundred seventy-six.

Answer: **hex**adecimal (or **base 16**)

- 9. This man was already suffering from a concussion, a broken arm, and a broken jaw protected by a splint when he was attacked on April 14, 1865, the same day as Lincoln's assassination. For 10 points each,
- [10] Name this Secretary of State, who was stabbed by Lewis Powell as part of the Lincoln assassination conspiracy. He survived his wounds and would later spend \$7.2 million to purchase Alaska from Russia.

Answer: William Seward

[10] While Seward was being stabbed, Abraham Lincoln was being shot by this actor and Confederate sympathizer.

Answer: John Wilkes Booth

[10] Booth's conspiracy also planned for George Atzerodt to attack this Vice President.

Answer: Andrew Johnson

- 10. This leader's party consolidated gains in the Acerbo Law, which disinclined Victor Emmanuel II from dismissing him. For 10 points each:
- [10] Name this leader of Fascist Italy who gained power during the 1922 March on Rome. Despite being his inspiration, this leader spent World War II playing second fiddle to Adolf Hitler.

Answer: Benito Mussolini

[10] Mussolini strengthened his ties by signing the Pact of Steel with this country, led by Hitler.

Answer: Nazi Germany

[10] Mussolini's militia supporters in the March on Rome were given this colorful nickname, based on their uniforms.

Answer: blackshirts