

SCOP Novice 4 | Round 10

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Tossups

1. **This deity is sometimes identified with the crocodile god Khenty-khety, and with the blind Mekhenty-er-irty because of a struggle with his uncle. This god's severed hands were retrieved by Sobek's fish trap, and this figure painted a (*) wooden boat to look like stone in a race against Set. His left eye represented the moon, and is symbolized by the wadjet. For 10 points, name this falcon-headed Egyptian god, the son of Osiris.**

Answer: Horus

2. **China refused to sign this treaty when Shandong was transferred to Japan. John Maynard Keynes criticized it in *The Economic Consequences of the Peace*, predicting hyperinflation that plagued the (*) Weimar Republic. Henry Cabot Lodge ensured that the US Senate did not ratify this treaty. Georges Clemenceau refused to accept many of Woodrow Wilson's Fourteen Points in, for 10 points, what treaty that ended World War I?**

Answer: Treaty of Versailles

3. **The values of this quantity for ideal gas particles is described by the Maxwell-Boltzmann distribution. Current density over charge density gives a "drift" type of this quantity. When the forces of drag and buoyancy are (*) equal to gravity, an object has a "terminal" value of this quantity. The rate of change in this vector quantity is acceleration. For 10 points, name this quantity equal to the rate of change in position.**

Answer: velocity (accept speed before "vector")

4. **One character in this work robs her father and runs away on a ship with Mercy Lewis. In one scene of this play, Ezekiel Cheever finds a doll which was a gift from Mary Warren, and Giles Corey dies asking for (*) "more weight." Ruth and Betty fall into a stupor that is blamed on Tituba, and Abigail Williams accuses John Proctor's wife, Elizabeth, of being a witch. Communism is represented by the Salem Witch Trials in, for 10 points, this play by Arthur Miller.**

Answer: The Crucible

5. **This band sang "We're gonna celebrate/celebrate and dance so free" in one song performed in a giant pyramid during their *Alive 2007* tour. This band of "One More Time" mentions the (*) "legend of the phoenix" in their highest charting single; that song, from the 2013 album *Random Access Memories*, features Pharell Williams noting "We're up all night." For 10 points, name this French electronic music duo of "Get Lucky."**

Answer: Daft Punk

6. If a line with this property is tangent to a curve at point A , the curve is not differentiable at A . The tangent function's asymptotes are this type of line. If a line of this type passes through the graph of a relation twice, the relation is (*) not a function, which is called the namesake "test" of this type of line. For 10 points, give this term that describes lines like $x=3$, which have undefined slope and are perpendicular to horizontal lines.

Answer: vertical line(s)

7. This work's title character sings the arias "O patria mia" [oh pah-tree-ah mee-ah] and "Ritorna vincitor." [ree-tohr-nah veen-cee-tohr] After defeating King Amonasro's forces, the commander Radames [rah-dah-meez] gives away the location of his army to the title character and is caught by his fiancée, (*) Amneris. This opera ends with Radames being buried alive with the title Ethiopian princess. Tim Rice and Elton John wrote a musical adaptation of, for 10 points, what Giuseppe Verdi opera set in Egypt?

Answer: Aida

8. This author's characters include a doctor who watches Paneloux [pah-neh-loo] die, Bernard Rieux [ree-oo], and a man who lives next to old Salamano, who beats his dog. That character, who shoots a knife-wielding (*) Arab on the beach, is convicted of murder because of his lack of remorse at his mother's death Meursault was created by, for 10 points, what French-Algerian existentialist writer, the author of *The Plague* and *The Stranger*?

Answer: Albert Camus

9. One of these elements is more stable with a half-filled lower-energy shell than a partially-filled higher-energy shell, so it violates the Aufbau principle. Many of these elements are (*) paramagnetic, most have multiple oxidation states, and they include the lanthanides and actinides. Groups 3 through 12 are, for 10 points, what f - and d -block elements, which are shown in the middle of the periodic table?

Answer: transition metals (accept transition elements; accept copper before "lanthanides"; prompt on metals)

10. A royal residence and monastery 30 miles north of this city is named El Escorial. A monument at Atocha station memorializes a terrorist attack in this city, where economic protestors have recently occupied this city's (*) Plaza Mayor [plaza mah-YOR] and Puerta del Sol. A 2004 Al-Qaeda train bombing killed 191 people in, for 10 points, what city, home to the Prado art museum, which Philip II named as capital of Spain?

Answer: Madrid

11. In one of this man's works, a path zigzags its way up to a roofed cave where a blue-caped Virgin Mary gazes at her son. This artist of *Mystic Nativity* painted an orange grove where Mercury pokes some clouds with his caduceus and a ghostly (*) Zephyr turns Chloris into Flora. In another of his works, Zephyr blows a naked goddess to land on an enormous seashell. For 10 points, name this Italian painter of *Primavera* and *The Birth of Venus*.

Answer: Sandro Botticelli

12. Prominent structures in this city were destroyed by Titus on a site thought to be Mount Moriah. This city contains the Cenacle [SEH-nah-kull], the original site of Maundy, and al-Aqsa Mosque. A tunnel in this city reveals sections of the (*) Western Wall, a feature of the Temple Mount. Palm Sunday, Muhammad's Night Journey, and the binding of Isaac are memorialized in, for 10 points, this middle-eastern city that is holy to most Abrahamic religions.

Answer: Jerusalem (accept Yerushalayim; accept al-Quds)

13. The durability of rubber is increased when this element is added during vulcanization. It is found in the amino acids methionine [meh-"THIGH"-oh-nin] and cysteine [SISS-teen]. The hexafluoride molecule of this element is a major (*) greenhouse gas; it also affects the climate in that its oxides lead to acid rain. This element gives hot springs and natural gas leaks a pungent odor. For 10 points, name this yellow-colored element with symbol S.

Answer: sulfur (prompt on "S")

14. General Edward Pakenham was killed during this battle. A defensive line in this battle was improved by the privateer Jean Lafitte. A failed crossing of the Mississippi River doomed the losing side in this battle, which was fought two weeks after the (*) Treaty of Ghent was signed. Andrew Jackson led the American victory in, for 10 points, what battle of the War of 1812 that prevented a British invasion of the largest city in Louisiana?

Answer: Battle of New Orleans

15. In a fable by Aesop, one of these animals tries to inflate himself to the size of an ox. A chorus of these chant "Bre-ke-ke-kex, ko-ax ko-ax!" as Dionysus is ferried across a lake in an Aristophanes play named for them. Lead shot is fed to one of these animals owned by Jim Smiley; that animal, (*) Dan'l Webster, is a "celebrated jumper" from Calaveras County in a Mark Twain story. For 10 points, name this animal, who, in a children's book series, is friends with Toad.

Answer: frogs

16. In the first step of this process, hexokinase catalyzes the production of G6P; later, NAD⁺ ["N A D plus"] is reduced to NADH. This process takes place in the cytosol, and does not require oxygen. Two ATP are needed in order to start the (*) investment phase while, 4 ATP are produced in the payoff phase. The Krebs cycle is often preceded by, for 10 points, what process that creates pyruvate by splitting glucose?

Answer: glycolysis (accept Embden-Myerhoff-Parnas pathway)

17. The Plan of San Luis Potosi sparked the overthrow of a seven-term holder of this position. A man known as "the Jackal" usurped this position in the Ten Tragic Days; that man, Victoriano (*) Huerta, was not supported by the United States government and was himself forced to resign by an army including Emiliano Zapata and Pancho Villa. Francisco Madero and Porfirio Diaz also held, for 10 points, what post as the leader of a North American country?

Answer: President of Mexico (prompt on President; accept Porfirio Diaz before "this position")

18. A treatise on this subject by Jean-Jacques Rousseau details how the boy Emile experiences this. John Dewey wrote about the communal aspects of this subject in a work titled for (*) *Democracy and this*. One approach to this process involves self-chosen activity and discovery as described by Maria Montessori. Pedagogy is the science of, for 10 points, what process of teaching and learning that often happens in colleges and schools?

Answer: education (prompt on learning, teaching, schooling, pedagogy, and/or equivalents before "Democracy")

19. Two travelers created by this author eat a group of sentient oysters and "talk of many things," and a singer created by this man sings about "beautiful Soup" after performing at a Lobster Quadrille. A nonsense poem by this man is explained by (*) Humpty Dumpty, and "The Walrus and the Carpenter" is recited by Tweedledee and Tweedledum in this man's *Through the Looking-Glass*. For 10 points, name this author of *Alice's Adventures in Wonderland*.

Answer: Lewis Carroll (accept Charles Lutwidge Dodgson)

20. One speech given in this city notes that "two thousand years ago, the proudest boast was 'civis Romanus sum'" and claims "all free men [...] are citizens of" this city. Another speech given here asks a world leader (*) "if you seek peace...if you seek liberalization: come here to this gate!" John F. Kennedy said "Ich bin" [eekh bihn] a member of this city, and Ronald Reagan said "Mr. Gorbachev, tear down this wall!" in, for 10 points, what capital of Germany?

Answer: Berlin (accept West Berlin)

Bonuses

1. Incidental music to this play includes the pieces "Morning Mood," "Anitra's Dance," "Solvieg's Song," and "In the Hall of the Mountain King." For 10 points each,

[10] Name this Henrik Ibsen play, which premiered in modern-day Oslo in 1876. The aforementioned music was compiled into two popular suites.

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

[10] This Norwegian composer of the *Holberg Suite* and a collection of *Lyric Pieces* for piano wrote the incidental music for *Peer Gynt*.

Answer: Edvard Grieg

[10] One of Grieg's *Lyric Pieces* celebrates one of these events "at Trolldhaugen." A march from Felix Mendelssohn's incidental music to *A Midsummer Night's Dream* precedes one of these events between Titania and Oberon, the faerie king and queen.

Answer: weddings (accept logical equivalents, like marriage; accept Wedding Day at Trolldhaugen)

2. During the Battle of Balaklava, part of the Siege of Sevastopol, this empire's Thin Red Line heroically repelled a cavalry charge, but miscommunication caused the misguided Charge of the Light Brigade. For 10 points each,

[10] Name this European empire which allied with France and the Ottoman Empire to fight the Crimean War against Russia.

Answer: Great Britain or the British Empire (accept England; accept United Kingdom)

[10] The Crimean War was fought on the Crimean Peninsula, part of this modern day country with capital Kiev.

Answer: Ukraine

[10] Metal from cannons captured at Sevastopol has been said to be used to make these British awards for "most conspicuous bravery." This award was introduced by its namesake monarch during the Crimean War.

Answer: Victoria Cross

3. The most common three-word phrase in this novel is "so it goes," which often appears after characters die. For 10 points each,

[10] Identify this novel about the firebombing of Dresden, in which an optometrist named Billy Pilgrim becomes unstuck in time and is abducted to the planet Tralfamadore.

Answer: Slaughterhouse Five; or, *The Children's Crusade: A Duty-Dance with Death*

[10] *Slaughterhouse Five* is a novel by this American author of *God Bless You, Mr. Rosewater*, who wrote about the fictional author Kilgore Trout in *Timequake* and *Breakfast of Champions*.

Answer: Kurt Vonnegut

[10] In this Vonnegut novel, John and the children of Felix Hoenikker accidentally destroy the world with ice-nine when Papa Monzano's frozen body falls into the sea near San Lorenzo.

Answer: Cat's Cradle

4. The Newlands Resolution officially ended the existence of this country in 1898. For 10 points each,

[10] Name this short-lived republic which had overthrown a Kingdom ruled by Queen Lili'uokalani. Its capital was Honolulu.

Answer: Republic of Hawaii

[10] Queen Lili'uokalani traveled to Washington D.C. to lobby against the Newlands Resolution, which took this action, a unilateral acquisition and declaration of sovereignty, with regards to Hawaii. The United States did this to the Republic of Texas in 1845.

Answer: annexation (accept word forms; prompt on general descriptions like "made it a territory of the United States;" do not accept "made Hawaii a state")

[10] This only president of the Republic of Hawaii was instrumental in overtaking the monarchy from Queen Lili'uokalani and assisted Congress with the Newlands Resolution. His family is known for its Hawaiian pineapple plantations.

Answer: Sanford Dole

5. For 10 points each, name these parts of the cell cycle:

[10] This part of interphase, divided into two sub-parts, occurs before and after the synthesis phase.

Answer: G-phase (accept: growth or gap phase)

[10] In this part of mitosis, chromosomes line up along the middle of the cell, and spindle fibers are formed.

Answer: metaphase

[10] After the chromosomes have been duplicated, this process takes place. In it, the cytoplasm divides, forming two daughter cells.

Answer: cytokinesis

6. Some people adhere to this principle by sweeping the ground in front of their feet so that they do not step on insects. For 10 points each,

[10] Give this term for an important principle of several Indian religions, whose name can be literally translated as "to cause no harm."

Answer: ahimsa (prompt on "non-violence" and other generic terms)

[10] Mahavira was the 24th tirthankara [teer-thahn-kah-rah] of this Indian religion, whose emphasis on self-control includes the principle of satya--a vow of truthfulness--and ahimsa [ah-heem-sah].

Answer: Jainism

[10] Following ahimsa requires Jains to adhere to this type of diet, in which meat, eggs, and fish cannot be eaten, though dairy products may be consumed.

Answer: (Lacto-)vegetarianism (accept word forms; do not accept or prompt on veganism; Jains can eat a vegan diet but are not required to)

7. The existences of the British Tempora program and American PRISM data mining program were announced in 2013 by this man. For 10 points each,

[10] Name this former contractor for Booz Allen Hamilton, a whistleblower who exposed secret surveillance operations of the National Security Agency.

Answer: Edward **Snowden**

[10] Snowden's leaks were publicized during an interview in Hong Kong with this British newspaper.

Answer: The **Guardian**

[10] After leaving Hong Kong, Snowden arrived at this Russian capital city's Sheremetyevo International Airport; where he stayed for a month until Russia granted him temporary asylum.

Answer: **Moscow**

8. This novel includes a blank chapter implying that its protagonist has died. For 10 points each,

[10] Name this early novel about the love affairs and adventures of the title prince, written by Lady Murasaki.

Answer: The **Tale of Genji** (accept **Genji Monogatari**)

[10] *The Tale of Genji* is the first novel from this country, the home of Yukio Mishima and the Akutagawa literary prize.

Answer: **Japan** (accept **Nihon**-koku or **Nippon**-koku)

[10] In 2010, this Japanese author completed *1Q84* [one "Q" eighty-four]. This man's earlier novels include *Kafka on the Shore* and *The Wind-Up Bird Chronicle*.

Answer: Haruki **Murakami** (accept **Murakami** Haruki)

9. For 10 points each, give these terms related to thrown objects:

[10] This is the study of the trajectories of projectiles, such as missiles.

Answer: **ballistics**

[10] Ballistics must account for this force, the resistance to flow through a fluid—usually air.

Answer: **drag** force (prompt on **friction** (al force))

[10] The drag force's magnitude is proportional to the speed of the object raised to this power. Speed is also raised to this power in the expression that gives kinetic energy.

Answer: **second** power or **two** (accept speed **squared**)

10. Bobby Bonilla retired from baseball in 2001, but this team will pay him \$1.2 million per year until 2035, because its owner, Fred Wilpon, believed in Bernie Madoff's hedge fund. For 10 points each,

[10] Name this team, which required loans from Major League Baseball in 2011 to cover expenses. In 2012, at home at Citi Field, Johan Santana pitched this team's first no-hitter.

Answer: New York Mets (prompt on New York)

[10] Citi Field hosted this event on July 16, 2013. This "Midsummer Classic" is preceded by the Home Run Derby, and home-field advantage in the World Series is given to the winning side of this game.

Answer: MLB All-Star Game

[10] This retiring New York Yankee closer won the 2013 All-Star Game MVP award. He entered the game to a standing ovation, then pitched a perfect 8th inning.

Answer: Mariano Rivera

11. This woman painted herself with her heart connected to her clone's heart in one work, and with the title primates in *Self-Portrait with Monkeys*. For 10 points each,

[10] Name this Mexican artist of many self-portraits. She depicted herself surrounded by a fractured pelvis and unborn baby, among other things, in her painting *Henry Ford Hospital*.

Answer: Frida Kahlo

[10] Kahlo was married to this artist. In addition to his *Detroit Industry* murals, he controversially painted Vladimir Lenin into *Man at the Crossroads* in New York's Rockefeller Center.

Answer: Diego Rivera

[10] Before it was completed, Rivera's *Man at the Crossroads* was destroyed and replaced with a mural featuring this American president. Daniel Chester French designed a memorial to this president that is featured on the reverse side of the penny.

Answer: Abraham Lincoln

12. This author wrote about a ghostly Oxford scholar in his poem "The Scholar Gypsy." For 10 points each,

[10] Name this English poet who wrote about a "note of eternal sadness" in his most famous poem.

Answer: Matthew Arnold

[10] Name this Arnold poem, in which "Sophocles long ago heard [the note of eternal sadness] on the Aegean." In it, the speaker looks upon the title white "cliffs of England" from across the English Channel.

Answer: Dover Beach

[10] Arnold wrote a poem about a "forsaken" one of these creatures. Hans Christian Andersen wrote about a "little" one of these aquatic humanoids, who turns into sea foam out of love for a prince.

Answer: merman (accept mermaid, merpeople, merfolk, or reasonable variants)

13. According to the *Iliad*, King Laomedon ordered a Greek god to build this structure. For 10 points each,

[10] Name this defensive structure, around which Achilles chased Hector three times before killing him.

Answer: walls of Troy (accept equivalents; prompt on city “wall”)

[10] This trident-wielding Greek god of the sea legendarily built the walls of Troy.

Answer: Poseidon (do not accept Neptune)

[10] Poseidon's trident was forged by Brontes, Steropes, and Arges, three of these creatures. Another of these creatures, Polyphemus, was blinded by Odysseus with one stab of a hot poker.

Answer: cyclops or cyclopes

14. This celestial body was discovered by Giuseppe Piazzi in 1801; later in that year, it was obscured by the Sun, so Carl Friedrich Gauss determined its orbit and it was re-discovered. For 10 points each,

[10] Name this celestial body, named for a Roman goddess.

Answer: Ceres

[10] Ceres was classified as a dwarf planet in 2006, but until then it was the largest one of these small, rocky bodies, primarily found in a namesake belt between Mars and Jupiter.

Answer: asteroid

[10] This discoverer of Uranus and two moons of Saturn ran an experiment to detect infrared radiation in 1800 and coined the term “asteroid” in 1802.

Answer: William Herschel

15. The Federalist Papers were authored by Alexander Hamilton, John Jay, and this man. For 10 points each,

[10] Name this fourth president of the United States, whose wife Dolley famously saved a portrait of George Washington from a British attack on the White House.

Answer: James Madison

[10] During Thomas Jefferson's presidency, Madison held this cabinet position, where he oversaw the Louisiana Purchase. This position is currently held by John Kerry.

Answer: Secretary of State

[10] Madison's re-election opponent was this Federalist nominee. As governor of New York, this man supported building the Erie Canal.

Answer: DeWitt Clinton

16. A major subplot in this work focuses on the relationship between Gina and Count Mosca. For 10 points each,

[10] Identify this novel by Stendhal focusing on Gina's nephew, Fabrice del Dongo. At the end of the book, Fabrice retires to the title building.

Answer: The Charterhouse of Parma (or Le Chartreuse de Parme)

[10] The title building in *The Charterhouse of Parma* is a Carthusian type of this religious structure. In Umberto Eco's *The Name of the Rose*, a pair of Franciscans investigate some deaths at a Benedictine variety of this building.

Answer: monastery [also accept abbey, monastère, or abbaye; do not accept "church" or "cathedral"]

[10] The title of Stendhal's novel *The Red and the Black* contrasts the red dress of Catholic clergy with the black uniforms worn by those with this job. Other literary characters with this general occupation include Paul Bäumer, who serves in the trenches in World War I.

Answer: soldier (accept military officer or any logical equivalent implying association with the army)

17. The Pythagoreans discovered that, because the diagonal of a square cannot be a multiple of the side of the square, the square root of 2 is this type of number. For 10 points each,

[10] Name this type of number that cannot be written as a terminating or repeating decimal number.

Answer: irrational numbers

[10] In the 18th century, Johann Lambert proved that pi is an irrational number by comparing a continuing fraction to this trigonometric function. Like the sine function, this trig function has the value zero when its input is zero.

Answer: tangent function (of x) (accept any letter in place of "x")

[10] A century later, Ferdinand Lindemann proved that pi is also this type of number, meaning that it cannot be the root of a non-zero polynomial equation with integer coefficients. Each real number is either one of these numbers, or an algebraic number.

Answer: transcendental numbers

18. In April 1975, as Van Tien Dung's army pressed in, Operation Frequent Wind evacuated several thousand people from this city by helicopter. For 10 points each,
[10] Name this city, now known as Ho Chi Minh City, that was the capital of a Southeast Asian nation until it fell in 1975.

Answer: Saigon

[10] The fall of Saigon ended this war, resulting in the unification of the country under Communist rule. This war was notoriously unpopular in the United States.

Answer: Vietnam War

[10] The fall of Saigon came two years after a set of relatively powerless peace accords were signed in this European city. Another, more lasting peace treaty signed here ended the American Revolution.

Answer: Paris (accept Paris Peace Accord(s) or Treaty of Paris)

19. This work inspired its author's later studies of how religion in Chinese and Indian cultures influenced the adoption of non-capitalistic economies. For 10 points each,
[10] Name this 1904 work of German philosophy, which argues that the title religious way of life gave birth to the "Spirit of Capitalism."

Answer: The Protestant Ethic and the Spirit of Capitalism

[10] This German sociologist and sometime-critic of Karl Marx wrote *The Protestant Ethic and the Spirit of Capitalism*.

Answer: Max Weber

[10] Weber contrasts the Protestant work ethic with that of this other religion, from which Protestants split. In *Suicide*, Emile Durkheim notes that members of this religion commit suicide less often than Protestants.

Answer: Roman Catholicism (accept word forms)

20. For 10 points each, give the following about voltaic cells:

[10] Several voltaic cells can be connected in a pile to create one of these objects that provide voltage to circuits. They are often used to power cordless electronic devices.

Answer: battery/ies

[10] The half-cells are often connected by one of these glass tubes filled with electrolytes. These allow the flow of ions to prevent charge buildups.

Answer: salt bridges

[10] The voltage of a voltaic cell can be calculated using this equation, which relates it to the standard potential, temperature, and reaction quotient.

Answer: Nernst equation