2015 SCOP 6 Middle School Edition

Round 6

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 man provoked France into declaring war by editing the Ems Dispatch, after which this man's country seized Alsace-Lorraine. He argued for higher military budgets, stating that the "great questions of the time" would be answered with (*) "blood and iron." For 10 points, name this man who helped Wilhelm I unite Germany as the "Iron Chancellor," for whom the capital of North Dakota is named.

Answer: Otto Eduard Leopold, Prince of **Bismarck**, Duke of Lauenburg (accept Otto von **Bismarck**)

- 2. The protagonist of this story entertains three policemen and explains that his sharpened senses, rather than madness, are what make him take an hour to open and look through a door. The narrator hears something like a watch "enveloped in cotton" after killing his (*) "vulture-eyed" landlord in this story. For 10 points, name this Edgar Allan Poe short story, in which the sound of the title organ beating under a floorboard reveals a murder. Answer: The Tell-Tale Heart
- 3. The Zanclean Flood passed through this waterway, ending a salinity crisis five million years ago. Jebel Musa, just west of Ceuta [thay-oo-tah], is thought to be one of the "Pillars of (*) Hercules" on the southern side of this strait; the other is a large rock that shares this strait's name. A proposed tunnel connecting Spain and Morocco would travel under, for 10 points, what strait that connects the Atlantic Ocean and Mediterranean Sea? Answer: Strait of Gibraltar
- 4. An iron-based type of these objects allows hard drives to store memory and is the strongest type of these objects. A coiled wire around a metal core can be used to make a type of this object that can be turned on and off. (*) Ferro- and electro- are types of these objects, in which "north" and "south" poles can attract each other. For 10 points, name these metal objects, used to hold papers to refrigerators.

 Answer: magnets
- 5. This band sang "Where you are seems to be / as far as an eternity" in "Sweetest Goodbye." Jesse Carmichael's 2015 meeting with the Dalai Lama forced this band to cancel Chinese concerts, where they probably would have played (*) "This Love" and "Payphone." For 10 points, name this band which keeps premiering singles on the NBC series *The Voice*, on which its frontman, Adam Levine, is a judge.

Answer: Maroon 5

6. In this novel, Madame de Thoux [duh THOH] and Cassy reunite with their lost relatives. Eliza escapes with her son over the frozen Ohio River in this novel, and reunites with her husband, George, who had been (*) owned by Mr Harris. This novel's protagonist rescues Eva St Clare and dies after being sold to Simon Legree. For 10 points, name this novel about a title slave, written by Harriet Beecher Stowe.

Answer: **Uncle Tom's Cabin**; or, Life Among the Lowly

- 7. The Keeling curve uses observations from Mauna Loa to plot the level of this chemical compound, and an influx of this compound has significantly contributed to coral bleaching and ocean acidification. The concentration of this substance in Earth's (*) atmosphere recently hit 400 parts per million, and humans add more by burning fossil fuels. For 10 points, name this greenhouse gas with formula $CO_2[C-O-2]$. Answer: <u>carbon dioxide</u> (accept $\underline{CO_2}$ until mentioned)
- 8. This city was home to William Lloyd Garrison's *The Liberator*. An engraving depicting a revolutionary event in this city shows Crispus Attucks dying in a Massacre. During another event in this city, Griffin's Wharf was stormed by the (*) Sons of Liberty, who threw chests of imported goods into the harbor. For 10 points, what Massachusetts city was the site of a namesake Tea Party?

Answer: **Boston**, Massachusetts

- 9. According to Gibbs' phase rule, a pure substance at this point has zero degrees of freedom. Polymorphic substances, which have multiple different solid forms, can have more than one of these points. Helium-4 has two of these points because of its (*) superfluid behavior. For 10 points, name this point at which all three phases of a substance—solid, liquid, and gas—can exist in a state of thermodynamic equilibrium.

 Answer: triple point (do not prompt or accept critical point)
- 10. A blue and yellow one of these objects appears in Rembrandt's *The Nightwatch* behind a girl in yellow. Delacroix [deh-lah-KWAH] painted a woman holding a three-colored one of these in (*) *Liberty Leading the People*, and a red-and-white striped one with a blue, starred corner is held behind the title general in the patriotic painting *Washington Crossing the Delaware*. For 10 points, name these banners that sometimes represent a nation. Answer: flags
- 11. A character in this novel believes in Benamuckee, and lives on an island near the Orinoco River. This novel was inspired by the adventures of Alexander Selkirk, a sailor. A former cannibal named (*) Friday is converted to Christianity in this novel by the title Englishman, who narrates the twenty-eight years he spends marooned on a desert island. For 10 points, name this novel by Daniel Defoe.

Answer: The Life and (Strange Surprizing) Adventures of **Robinson Crusoe** (of York, Mariner)

12. This god failed to lift a cat because it was the serpent Jormungandr [YOR-mun-gon-dur] in disguise. This god is the husband of Sif, and Loki helped this god disguise himself as Freyja to recover his signature (*) weapon. This son of Odin and wielded the short-handled hammer Mjolnir [mee-YOLL-neer]. For 10 points, name this Norse god of thunder.

Answer: Thor (accept Donar)

13. One politician with this surname was responsible for the construction of the Erie Canal, which was nicknamed that man's "ditch." Another politician with this surname was impeached by the House of Representatives for perjury regarding his conduct with an (*) intern, but he was not convicted by the Senate in 1997. For 10 points, name this surname shared by Dewitt and the 42nd U.S. President, Bill.

Answer: Clinton (accept Dewitt Clinton; accept William Jefferson Clinton)

14. This philosopher praised Brutus in his *Discourses on Livy*. In another work, he uses Cesare Borgia as an example of the title figure, who he said should be both a "lion" and a "fox" when (*) ruling. After being tortured by the Medicis, this man wrote that "it is better to be feared than loved" as a ruler. For 10 points, identify this Italian philosopher who wrote *The Prince*.

Answer: Niccolo di Bernardo dei Machiavelli

15. This character and his wife Hedwige hear the "call to the cows" and sings a horrified aria when Gessler ties this man's son to a stake. That aria, "Sois immobile" [swaz ee-MOH-bee-lay] tells Jemmy to "stay perfectly still." This Swiss folk hero is immortalized in a (*) Rossini opera whose overture is often used as music for heroic horseback riding. For 10 points, name this archer who shoots an apple from his son's head.

Answer: William Tell (accept Guillaume Tell; accept Guglielmo Tell; accept either underlined name in any of

Answer: William Tell (accept Guillaume Tell; accept Guglielmo Tell; accept either underlined name in any of these answers)

- 16. In a play by this man, Giles Corey is crushed to death and John Proctor is hanged during the Salem Witch Trials. In another play by this author, Biff and Happy (*) Loman propose the "Florida idea" to their father Willy, who dies in a car crash. For 10 points, name this American playwright of *The Crucible* and *Death of a Salesman*. Answer: Arthur Asher Miller
- 17. The union of a function and its reflection over this line cannot be a function. The distance from this line is designated by the ordinate. The graph of a quadratic function with imaginary roots will never touch this line, which marks the boundary between the first and (*) fourth quadrants in a Cartesian graph. For 10 points, name this horizontal line, given as y equals zero.

Answer: <u>x axis</u> (accept <u>y equals zero</u> or equivalents until it is read)

18. These compounds can adapt to the active site in the induced fit model, and may use cofactors to trigger activity. These macromolecules reduce activation energy and are not used up in reactions. These "biological (*) catalysts" usually have names ending with the suffix "-ase" [ACE]. For 10 points, what type of proteins speed up chemical reactions?

Answer: enzyme

19. This country's "Chemical Ali" released mustard gas during the Al-Anfal campaign, and the United States' treatment of prisoners in this country led to the (*) Abu Ghraib scandal. This country was bombed during Operation Desert Storm, a move prompted by its invasion of Kuwait. For 10 points, name this country formerly led by Saddam Hussein from its capital, Baghdad.

Answer: Republic of **Iraq**

20. One of these men gave Michael Ramsey his Ring of the Fisherman. Sede vacante [say-day vah-kon-tay] occurs when one of these figures is not in power. One of these men issued the Exsurge Domine [ek-soor-jay doh-mee-nay], which threatened (*) Martin Luther with excommunication. The first of these was the Apostle Peter, and the current one is Francis. For 10 points, name the leader of the Catholic church.

Answer: <u>Pope</u>s (accept <u>Bishops of Rome</u>; accept <u>Roman Pontiff</u>s; accept <u>Pontifex Maximus</u>; prompt on "His Holiness," "Holy Father," or "Sancta Papa")

Bonuses

1. This Greek deity was once hung from the sky with anvils on her ankles for attempting to rebel against Zeus. For 10 points each,

[10] Name this wife of Zeus, the Queen of Heaven and goddess of marriage.

Answer: **Hera** (do not accept Juno)

[10] Hera is sometimes shown holding this fruit. Persephone ate some seeds of this fruit, which condemned her to live part of each year in the underworld.

Answer: pomegranate

[10] Persephone's time in the underworld saddened this goddess of the harvest, who casts the world into winter while Persephone is away from her.

Answer: **Demeter**

2. According to Twitter, Pittsburgh Pirate Sean Rodriguez spoke to one of these objects and apologized profusely, and this object forgave him "as Christ forgives all." For 10 points each,

[10] Name this 10-gallon sporting good, which took four right hooks from Rodriguez after his ejection from the 2015 NL Wild Card game.

Answer: <u>Gatorade</u> cooler (accept any description of a <u>vessel</u> that holds <u>Gatorade</u>; do not accept any other beverage; prompt on partial answer)

[10] Rodriguez's fruit punch pugilistics came during a loss to this fellow NL Central team, led by Anthony Rizzo and Jake Arrieta. In 2009, Carlos Zambrano took a bat to a Gatorade fountain in this team's Wrigley Field dugout. Answer: Chicago **Cubs** (prompt on Chicago)

[10] The day after Rodriguez' anti-electrolyte violence, this star Houston Texans running back slammed a caddy of Gatorade bottles to the ground.

Answer: Arian Foster

- 3. This body is orbited by Styx and Nix. For 10 points each,
- [10] Name this former ninth planet from the Sun which was demoted in 2006.

Answer: Pluto

[10] Pluto was demoted to this type of planet, characterized by an inability to clear the neighborhood around its orbit.

Answer: **dwarf** planet

[10] Pluto is located in this "belt" of the solar system, also home to the dwarf planets Haumea [HOW-may-uh] and Makemake [mah-KAY-mah-KAY].

Answer: Edgeworth-Kuiper belt

- 4. Sailors in one of this man's poems are killed for sacrificing Helios's cows and stuff their ears with cotton to avoid the song of the sirens. For 10 points each,
- [10] Name this ancient poet, who wrote the *Iliad* and the *Odyssey*.

Answer: Homeros

[10] In Homer's *Odyssey*, this young man is the son of Odysseus and Penelope. When his father returns from war, this man helps kill Penelope's suitors.

Answer: **Telemachus**

[10] Odysseus uses the drug moly to fend off the advances of the witch Circe, who turns Odysseus's men into these farm animals.

Answer: **pig**s (accept **swine**)

- 5. Emulsions like milk are examples of these substances, which disperse light by the Tyndall effect. For 10 points each,
- [10] Name these mixtures formed from two insoluble compounds. Other examples include gels and aerosols.

Answer: colloids

[10] Foams are colloids in which this phase of matter is dispersed within either a liquid or a solid.

Answer: gas

[10] This type of mixture results when large particles are temporarily dispersed throughout a fluid. It ceases to exist through sedimentation, such as when sand and soil settle out of muddy water.

Answer: suspension

- 6. This leader crushed the Scots in the Battle of Worcester, a victory which caused Charles II to flee to France. For 10 points each,
- [10] Name this Lord Protector of the England, who participated in the English Civil War.

Answer: Oliver Cromwell

[10] Cromwell was responsible for conquering this island nation. During his war with this nation, its Catholic Confederation was supported by English Royalists.

Answer: Ireland

[10] After conquering Ireland, Cromwell formed the "Barebones" version of this body, which in modern times is divided into the House of Lords and the House of Commons.

Answer: **Parliament** (accept Barebone's **Parliament**; accept Rump **Parliament**)

- 7. For 10 points each, give the following about an artist who used his work *Princess from the Land of Porcelain* as the centerpiece for a colorful, Japanese-inspired room.
- [10] That room is called *Harmony in Blue and Gold*, but is also titled after this showy and colorful bird, whose large tails appear in gold leaf throughout the room.

Answer: Peacock Room

[10] This artist of Arrangement in Grey and Black designed the Peacock Room, and painted a controversial Nocturne in Black and Gold: The Falling Rocket.

Answer: James (Abbott) McNeill Whistler

[10] Whistler painted Arrangement in Grey and Black to represent this close relative of his. Dorothea Lange photographed a "Migrant" one of these women, and Mary Cassatt painted many of these people with their children.

Answer: <u>mother</u> (accept variations, such as <u>mom</u> or <u>mum</u>; accept <u>Whistler's Mother</u>; accept Portrait of the Artist's

Mother; accept Migrant Mother)

8. A land bridge spanned this body of water during a period of low sea levels twelve- to twenty thousand years ago. For 10 points each,

[10] Name this strait that separates the US from Russia.

Answer: **Bering** Strait

[10] Specifically, the Bering Strait connects the Arctic and Pacific Oceans, passing just west of this U.S. state's Seward Peninsula.

Answer: Alaska

[10] These two islands in the Bering Strait are separated by the international date line. The smaller of these islands is owned by the United States; the larger, by Russia.

Answer: <u>Diomede</u> Islands (accept the <u>Diomede</u>s; accept Big and Little <u>Diomede</u> Islands; accept <u>Inaliq</u> and <u>Ignaluk</u>; accept <u>Imagliq</u>, <u>Nunarbuk</u>, or <u>Ratmanov</u> in place of "Inaliq" in the previous note)

9. After an attack on the city of Lawrence, this man led a massacre near Pottawatomie Creek. For 10 points each, [10] Name this abolitionist who was hanged after his failed raid on Harper's Ferry.

Answer: John Brown

[10] John Brown was heavily involved in this territory's "Bleeding" period. During that period, anti-slavery supporters passed the Topeka Constitution.

Answer: Kansas Territory.

[10] After his death, "John Brown's Body" become a popular song in the North, although it was later adapted into this song by Julia Ward Howe.

Answer: The **Battle Hymn of the Republic**

10. In the opening of this book, one character laments "Christmas won't be Christmas without any presents" before she and her sisters decide to play Pilgrim's Progress. For 10 points each,

[10] Identify this work that focuses on the lives of Jo, Meg, Amy, and Beth March. The author based much of this book on her own experiences growing up in the 1800s.

Answer: Little Women

[10] *Little Women* was written by this American author. She also wrote several stories under the name AM Barnard for the *Atlantic Monthly*.

Answer: Louisa May Alcott

[10] Alcott tutored the daughter of this Transcendentalist author of the essay *Nature*, who gave the Divinity School Address.

Answer: Ralph Waldo Emerson

- 11. A turning point in the study of genetics was reached when Frederick Griffith injected different strains of pneumonia into this species. For 10 points each,
- [10] Name this small, white mammalian organism whose "knockout" varieties are used to study human diseases like obesity and Parkinson's.

Answer: mouse (accept Mus musculus)

[10] Thomas Hunt Morgan studied the genetic traits of this model organism, whose four chromosome pairs affect traits like curly wings, ebony bodies, and white or red eyes.

Answer: common <u>fruit fly</u> (accept <u>Drosophila</u>; accept <u>D</u>rosophila <u>melanogaster</u>; accept <u>vinegar fly</u>)

[10] Yeasts are often used as simple model organisms of this type. Unlike in prokaryotes, the cells of these organisms contain organelles bound by membranes.

Answer: eukaryotes

12. Benny Goodman played this single-reed jazz instrument in his cover of "Sing, Sing, Sing." For 10 points each, [10] Name this woodwind that is higher in pitch than a bassoon yet lower than a flute. It has a larger range than an oboe.

Answer: clarinet

[10] Ross Gorman originally improvised the clarinet glissando at the beginning of this jazzy "Rhapsody."

Answer: **Rhapsody in Blue**

[10] This composer of *Rhapsody in Blue* evoked Caribbean rhythms in his *Cuban Overture* and described his travels in *An American in Paris*.

Answer: George Gershwin.

- 13. In this work, subtitled *Mutiny of the Hispaniola*, Billy Bones leaves his sea chest to a young boy. For 10 points each,
- [10] Name this adventure novel by Robert Louis Stevenson, in which Jim Hawkins travels to find pirate treasure.

Answer: Treasure Island; or, The Mutiny of the Hispaniola

[10] This ship captain pays Squire Trelawney to hire sailors to help him find the treasure. He ends up with a boatload of pirates who mutiny against this man.

Answer: Captain Alexander **Smollett**

[10] This peg-legged, parrot-toting cook on Smollett's ship leads the mutiny to claim the treasure.

Answer: Long John Silver

- 14. In a triangle, these three lines meet at the incenter. For 10 points each,
- [10] This is the term for a line or line segment that divides an angle into two new angles with equal measurements.

Answer: angle bisector

[10] The incenter of a triangle is unusual in that it only falls on the Euler [oy-lur] line if at least two of the angle bisectors are of equal length, which only occurs if the triangle has this property.

Answer: isosceles triangle

[10] The angle bisectors meet at the incenter; the altitudes of a triangle meet at this other central point.

Answer: orthocenter

- 15. This battle was codenamed Operation Detachment. For 10 points each,
- [10] Name this battle over a Pacific island during which the *USS Bismarck Sea* was sunk. During this battle, Joe Rosenthal photographed a group of soldiers raising a US flag.

Answer: Battle of **Iwo Jima**

[10] Joe Rosenthal's photograph was taken at the peak of this mountain. During the fight for Iwo Jima, the Japanese were highly entrenched at this location.

Answer: Mount **Suribachi** (accept **Suribachi**yama)

[10] Rosenthal's photograph was recreated in a memorial for this branch of the military. This branch of the military uses the motto "Semper Fidelis" and works closely with the Navy.

Answer: United States Marine Corps (accept USMC)

- 16. A break-in was discovered at this location after Frank Wills noticed duct tape blocking a door's latch. For 10 points each,
- [10] Name this hotel, where five people attempted to wiretap the headquarters of the Democratic National Committee.

Answer: Watergate Hotel and Office Building

[10] This organization caused the Watergate break-in to become a full-fledged scandal after they paid for the burglars' legal fees. This organization was created to help a certain man win the election of 1972.

Answer: Committee to Reelect the President (accept CREEP or CRP)

[10] The Watergate scandal caused the resignation of this president, who was later controversially pardoned by his former vice president, Gerald Ford.

Answer: Richard Milhous **Nixon**

- 17. For 10 points each, name the following short stories that feature diabolical plot twists.
- [10] In this Guy de Maupassant short story, Mathilde works for years to pay for a replacement after she loses the title piece of jewelry, but finds out too late that Madame Forestier's [foh-REH-stee-AY's] jewelry had been fake. Answer: The Diamond **Necklace** (accept La **Parure**)
- [10] In this W. W. Jacobs short story, Mr White uses the title appendage to wish for money, but his son is killed in the process. When he wishes again for his son to return from the dead, he gets a horrific result.

Answer: The Monkey's Paw

[10] In this short story by Richard Connell, Rainsford discovers that the only prey that challenges General Zaroff on his hunts is humans.

Answer: The Most Dangerous Game (accept The Hounds of Zaroff)

- 18. This physicist names a law of dry friction that notes that sliding velocity does not affect the force of friction. For 10 points each,
- [10] Name this Frenchman, whose namesake law describes the inverse-square relationship of the electrical force exerted between two points.

Answer: Charles-Augustin de Coulomb

[10] A coulomb is a measure of this quantity, which is equal to current times time. It is a property that can only be positive or negative, and it measures how matter is affected by an electromagnetic field.

Answer:electric **charge** (accept **q**)

[10] Coulomb's law was developed to explain this form of electricity caused by an imbalance of charges across two materials. This type of electricity results when a balloon is rubbed with wool, and lightning is also caused by it. Answer: **static** electricity

- 19. This religion's holiest gurdwara, or temple, is the Gold Temple in Amritsar. For 10 points each,
- [10] Name this religion, whose members wear the Five K's. This Indian religion was founded by Nanak, and its holy text is the Adi Granth.

Answer: Sikhism (accept Sikhi)

[10] The Adi Granth is considered the last of these wise teachers of Sikhism. This Sanskrit term describes a trusted, knowledgeable instructor.

Answer: guru

[10] The act of wearing this body part uncut is called Kesh, one of the Five K's of Sikhism. The Keski and Dastar, a cloth and turban, cover this body part.

Answer: hair

- 20. A twenty-hour ferry ride will take you from Devonport, in this country's southernmost state, through Port Phillip to this nation's capital city. For 10 points each,
- [10] Name this Southern Hemisphere island country, founded as a British penal colony, whose capital is Canberra.

Answer: Australia

[10] This southern-most Australian state was formerly known as Van Diemen's Land, and is separated from the mainland by the Bass Strait.

Answer: Tasmania

[10] The capital of Australia is this southern, coastal city in the state of Victoria.

Answer: Melbourne