

2015 SCOP 6 Middle School Edition

## Round 2

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### Tossups

1. **In this organ, proper contraction of papillary muscles prevents click-murmur syndrome. This organ can be examined through EKG, and its myocardium is fed oxygen by (\*) coronary arteries. Ventricles and atria make up its four chambers. For 10 points, name this origin of the aorta, the organ which pumps blood through the body.**

Answer: heart

2. **One of these institutions was simulated by a Philip Zimbardo experiment at Stanford University, and Jeremy Bentham created an ideal design for this type of building called “Panopticon,” in which a single watchman could observe all of the (\*) inmates in one of these places. For 10 points, name these institutions that hold convicted criminals.**

Answer: prisons (accept equivalents such as detention centers or jails)

3. **This god’s wife anointed a djed column after finding his body inside it. This god was tricked into entering a coffin by his brother, Set, who threw him into the Nile. This (\*) green-skinned father of Horus was brought back to life by his wife, Isis. For 10 points, name this Egyptian god, who replaced Anubis as king of the dead.**

Answer: Osiris (accept Usiris; accept Aser)

4. **One of these organizations lost its public support after the Haymarket Square Riots. Another of these organizations is headquartered in Detroit, and its members (\*) work for companies like Ford. For 10 points, name these organizations, exemplified by the United Auto Workers, which protects the rights of laborers.**

Answer: labor unions (accept trade unions)

5. **This artist painted his wife Gala as *The Madonna of Port Lligat*. In another of this man’s paintings, a bare tree sits atop a brown box alongside an upside-down timepiece swarming with ants. This creator of *Swans Reflecting Elephants* painted a deflated face and soft-textured (\*) clocks in *The Persistence of Memory*. For 10 points, name this Spanish surrealist painter.**

Answer: Salvador (Domingo Felipe Jacinto) Dalí (i Domènech)

6. **This sea was called “inhospitable” by the Greeks until they finally colonized the Pontus. The Strait of Kerch connects this sea to the oil-rich Sea of Azov, surrounding a peninsula that is home to Yalta and Sevastopol. The Dniester [NEE-stur], Dnieper [NYE-pur], and (\*) Danube Rivers flow into the west shores of this sea. The Crimean Peninsula juts into, for 10 points, what colorfully-named Asian sea north of Turkey?**

Answer: Black Sea

7. **Deccan and Siberian traps were formed from this natural substance. Smooth and rough forms of this substance are called pahoehoe [pah-HOH-ay-hoh-ay] and a'a [AH-ah]. (\*) Pumice and obsidian glass result from this substance cooling. For 10 points, name this molten rock that forms igneous rocks and comes out of volcanos.**

Answer: **lava** (accept **magma**; prompt on “molten rock” or equivalents until it is read)

8. **This novel's frame story consists of letters from Captain Walton, who hears a confession regarding the deaths of William and Henry Clerval. The title scientist mourns Elizabeth Lavenza on his wedding night after he attempts to create a (\*) living being from the corpses of convicts. For 10 points, name this Mary Shelley novel in which the title scientist is pursued by his hulking creation.**

Answer: **Frankenstein**; or, The Modern Prometheus

9. **The “Steel Butterfly” of this country fled during the People's Power Revolution, leaving behind a collection of over 1,000 pairs of shoes. Douglas MacArthur stated “I will return” after being forced to retreat to Australia from this country in World War II. This country was put under U.S. control after the (\*) Spanish-American War. For 10 points, name this Asian island nation led from Manila.**

Answer: Republic of the **Philippines**

10. **The protagonist of this work is invited to a witches' sabbath by Mistress Hibbins. In this novel, Roger Chillingworth arrives in New England to find his wife has been imprisoned for having an affair with Reverend Arthur Dimmesdale. (\*) Pearl is the daughter of Hester Prynne, who is forced to wear the title symbol as a sign of her adultery in, for 10 points, what novel by Nathaniel Hawthorne?**

Answer: The **Scarlet Letter**

11. **Under anaerobic conditions, this process follows glycolysis. Some bacteria can change lactose to lactic acid by this process, whose general form yields no ATP but does convert sugars into byproducts such as carbon dioxide and (\*) ethanol. Kimchi, yogurt, and cheese are produced by, for 10 points, what yeast-driven process that creates alcohol, as used in winemaking and beer brewing?**

Answer: **fermentation** (accept word forms, such as **ferment**)

12. **In *Warcraft* lore, Ashbringer is one of these things that belongs to Tirion Fordring, a paladin. Cloud uses a “buster” one of these, and in *Halo*, Elites often wield an (\*) “energy” type of this weapon. For 10 points, katanas are a type of what class of weapon that is often used with a shield?**

Answer: **swords** (accept elaboration such as **short-swords**, **greatswords**, or **blades**; do not accept **daggers** or **knife**/ves)

13. **Martha was rebuked for working instead of listening to this figure, who fasted in a desert for forty days, saying “man does not live by bread alone.” This religious leader ate a (\*) last meal with his disciples in Jerusalem, where Pontius Pilate had him crucified. For 10 points, name this man, the central figure of Christianity.**

Answer: **Jesus** of Nazareth (accept Jesus **Christ**; prompt on “Messiah”)

14. **This colony's governor, William Berkeley, was targeted in Bacon's Rebellion. Patrick Henry proclaimed "Give me liberty or give me death!" during debate in this colony's House of (\*) Burgesses; other Founding Fathers from this colony include Thomas Jefferson and George Washington. For 10 points, name this American colony, now a state, where John Rolfe's tobacco business fueled the growth of Jamestown.**

Answer: Colony of Virginia (accept Virginia Colony; accept Province of Virginia; accept Dominion and Colony of Virginia; accept Most Ancient Colloney and Dominion of Virginia; accept Jamestown until "House of Burgesses" is read)

15. **A character in this novel raises Hareton to be illiterate as revenge for the childhood abuse he suffered from Hindley. The housekeeper Nelly Dean narrates the events of this work to Mr. Lockwood, who has rented a house close to the title location, (\*) Thrushcross Grange. For 10 points, name this novel by Emily Brontë, in which Catherine and Heathcliff are finally buried together near the title house.**

Answer: Wuthering Heights

16. **One of these mathematical objects is called the directrix when it helps define a parabola, and two of these that intersect define a plane. The formula (\*) "y equals m x plus b" describes, for 10 points, what degree-one polynomials with constant slope and no endpoints?**

Answer: lines (accept linear equation or function)

17. **This composer began one work with the text "Blessed are they that mourn." This composer wrote no operas, and his first symphony is often nicknamed "Beethoven's Tenth." He used the Luther Bible, rather than a Latin text, for his (\*) *German Requiem*. For 10 points, name this composer whose song "Good evening, good night" is now commonly known as his lullaby.**

Answer: Johannes Brahms

18. **These particles are emitted in beta decay and the photoelectric effect, and these leptons drop to the lowest unoccupied energy state to produce spectral lines. The movement of these particles produces (\*) electrical current. For 10 points, name these subatomic particles that orbit the nucleus and are attracted to protons because of their negative charge.**

Answer: electrons

19. **Vidkun Quisling ruled a puppet government in this nation for the Nazis. Alfred Nobel invented dynamite in this nation, where the Nobel Peace Prize - but not the other Nobel prizes - is awarded. King This neighbor of Sweden is known for its dramatic fjords. (\*) For 10 points, name this Scandinavian country with capital at Oslo.**

Answer: Kingdom of Norway

20. **This reclusive poet was known as the "Belle of Amherst," and wrote "'Hope' is a thing with feathers" and a poem about "the Stillness in the Room" around her deathbed. This poet wrote (\*) "I heard a Fly buzz -- when I died." For 10 points, name the American woman who wrote "Because I could not stop for Death / He kindly stopped for me."**

Answer: Emily Elizabeth Dickinson

**Bonuses**

1. Prince Prospero holds a colorful ball for nobles fleeing the title disease in “The Masque of the Red Death,” a short story by this American author. For 10 points each,

[10] Name this author of “The Masque of the Red Death,” who also wrote “The Pit and the Pendulum.”

Answer: Edgar Allan **Poe**

[10] In this Edgar Allan Poe short story, Montresor lures Fortunato into a wine cellar by tempting him with the title beverage.

Answer: The **Cask of Amontillado**

[10] This other Poe short story concerns the title animal, named Pluto, whose yowling alerts the police to a body hidden by this story’s narrator.

Answer: The **Black Cat**

2. Martin Shkreli gained infamy in September 2015 by increasing the price on Daraprim, a drug that helps prevent pneumonia in patients who already have this virus. For 10 points each,

[10] Name this virus which can cause the onset of AIDS.

Answer: **H**uman **I**mmunodeficiency **V**irus

[10] Shkreli purchased Daraprim after this form of legal protection on it expired. This protection was granted when Daraprim was invented.

Answer: **patent**

[10] Shkreli’s \$750-per-pill markup prompted a retaliation in the form of Imprimis, a competing drug of this type that is now being offered at \$1 per pill. This type of drug provides the effects of a name-brand drug, but isn’t supported by a large brand name and is often unmarketed, which usually makes these types of drugs cheaper.

Answer: **generic** drugs (accept **off-brand** drugs; accept “medicine” or “medication” for “drug”)

3. Members of this tribe signed the Treaty of New Echota, and its first constitutionally elected chief was John Ross. For 10 points each,

[10] Name this Native American tribe, one of the Five “Civilized” Tribes, whose syllabary was invented by Sequoyah. The Supreme Court case *Worcester v Georgia* was intended to respect this tribe’s sovereignty.

Answer: **Cherokee** Nation (accept **Tsalagi**)

[10] In response to *Worcester v Georgia*, this seventh president supposedly said “John Marshall has made his decision; now let him enforce it!” and continued plans to remove the Cherokee from Georgia anyway.

Answer: Andrew **Jackson**

[10] After the Treaty of New Echota, the Cherokee were forced to undergo this harsh, forced relocation to the Indian Territory in modern Oklahoma.

Answer: **Trail of Tears**

4 This character once mistook a giraffe bubble for an elephant, and he asked “What’s the difference?” between stupid and Texas. For 10 points each,

[10] Identify this pink sea creature, who lives under a rock in Bikini Bottom.

Answer: **Patrick Star** (accept either underlined name)

[10] This neighbor of Patrick Star works as a cook at the Krusty Krab. This title character lives in a pineapple with his snail Gary.

Answer: **Spongebob Squarepants** (accept either underlined name)

[10] This elderly superhero, a resident of Bikini Bottom, teams up with Barnacle Boy to face foes like Man Ray and the Dirty Bubble.

Answer: **Mermaid Man**

5. During the nineteenth-century Meiji [may-jee] Restoration, Japanese culture spread West to inspire the art and culture of Europe. For 10 points each,

[10] The French obsession with Japanese culture, called “Japonism,” influenced the style of this French art movement. This movement focused on studies of light, often representing it with thick dabs of color rather than with smooth brush strokes.

Answer: **Impressionism** (accept word forms, such as **Impressionist**)

[10] The Impressionists were greatly inspired by Japanese ukiyo-e [oo-kee-oh-ay]; ukiyo-e prints are produced by applying ink to interlocking blocks made of this material.

Answer: **wood**

[10] Wood block printing master Hokusai’s [hoh-koo-”sigh”s] work *The Great Wave Off Kanagawa* [kah-nah-gah-wah] is one of his *Thirty-Six Views* of this iconic Japanese volcano.

Answer: Mount **Fuji** (accept **Fujiyama**; accept **Fuji-san** or **Fuji-sama**)

6. In this novel, Roger rolls a boulder onto a conch shell that had been used to call meetings. For 10 points each,

[10] Name this William Golding novel about a group of young boys, including the twins “Samneric” and the choirboy Jack, who are stranded on an island.

Answer: **Lord of the Flies**

[10] In *Lord of the Flies*, this chubby boy is killed by the boulder Roger rolls. This character’s glasses are used to light signal fires.

Answer: **Piggy**

[10] At the end of *Lord of the Flies*, a Royal Navy officer shows up to save the boys. The officer is an example of this plot device, whose name means “god from the machine,” in which a new character is introduced to solve a problem.

Answer: **deus ex machina**

7. The Atlas Mountains are found on the northern edge of this desert. For 10 points each,

[10] Name this North African desert, the largest hot desert in the world.

Answer: **Sahara** Desert

[10] This region directly south of the Sahara Desert transitions the African continent between the Sahara and the savannah.

Answer: **Sahel**

[10] The Sahel stretches east to this body of water's shore on Sudan and Eritrea; crossing this body of water from there would take you to Saudi Arabia.

Answer: **Red Sea**

8. A particular Greek goddess found herself in a lot of competitions. For 10 points each,

[10] Name this deity, who competed with Poseidon over control of her namesake city. This figure was the Greek goddess of wisdom.

Answer: **Athena** (do not accept "Minerva")

[10] Athena competed against other Olympian goddesses to be deemed the most beautiful in the eyes of this Trojan prince, who later kidnapped Helen.

Answer: **Paris**

[10] In addition to wisdom, Athena presided over the strategic side of battles, alongside this Olympian god of war.

Answer: **Ares**

9. Carbon dioxide and water are needed for plants to undergo this process. For 10 points each,

[10] Name this process in which sunlight is converted into usable chemical energy by formation of sugars.

Answer: **photosynthesis**

[10] This dual-membrane organelle in plant cells is responsible for photosynthesis.

Answer: **chloroplast**

[10] Photosynthesis also takes place in some of these underwater protists, such as kelps. Cyanobacteria are commonly called the "blue-green" type of these creatures.

Answer: **algae**

10. Phillis Wheatley wrote "'Twas mercy brought me from my pagan land" in a poem about "Being Brought From Africa To America," even though she had been kidnapped and forced into this barbaric way of life. For 10 points each,

[10] Name this outdated system, in which humans claimed to own other humans.

Answer: **slavery** (accept word forms)

[10] Scarlett O'Hara persuades her father to buy the slave Dilcey and her daughter, Prissy, in this Civil War-era Margaret Mitchell novel, which ends when Rhett Butler leaves Scarlett.

Answer: **Gone with the Wind**

[10] *Gone with the Wind* is sometimes considered to be a part of this literary genre, which promoted slavery as benign and necessary. This genre is commonly named after the large farms that used slave labor.

Answer: **plantation** fiction (accept **Anti-Tom** fiction; accept "novels" or "literature" in place of "fiction")

11. These substances can be anodized, such as by galvanizing, in order to build a strong oxide layer around them to prevent rusting. For 10 points each,

[10] Name these substances that have high electrical and thermal conductivities because valence electrons in these substances are entirely delocalized in a “sea of electrons.”

Answer: **metals**

[10] Metals are often malleable, meaning they can be pounded into sheets, and have this property, the ability to be stretched into a thin wire.

Answer: **ductility** (accept word forms like **ductile**)

[10] Metals cannot be ductile in this state of matter, since their atoms move too freely to form a rigid shape. This state of matter can be reached by melting a solid or by compressing a gas.

Answer: **liquid**

12. Answer the following about the Zoroastrian religion, which prohibits defiling natural substances like earth, for 10 points each.

[10] To avoid contaminating the ground, Zoroastrian Towers of Silence have traditionally been used to perform this funerary action. In Hinduism, this action is performed primarily by cremation.

Answer: **burial** (accept descriptions, such as “**burying the dead**” or “**disposing of a body**”)

[10] Zoroastrians worship at temples named for this substance, where priests wear face masks to avoid contaminating this substance with their breath, Zoroastrianism calls this substance Atar or Atash, and ranks it according to its heat and intensity.

Answer: **fire** (accept **flames**)

[10] Zoroastrian priests wear robes and face masks of this color, which represents death in east Asia, and which is the color of Yang in Taoism.

Answer: **white**

13. The value of this quantity for a parabolic arch is two-thirds times the height of the arch times the base of the arch. For 10 points each,

[10] Name this two-dimensional measurement of the size of a shape. For a circle, it can be found by taking pi times the square of the radius.

Answer: **area**

[10] A three-dimensional figure does not have area; instead, this other measurement considers the total measure of the boundary points of the three-dimensional object.

Answer: **surface area**

[10] The area of a curved two-dimensional region can be found by using integration, the opposite of differentiation in this mathematical discipline.

Answer: **calculus**

14. Gustav Mahler wrote eight symphonies, then the symphony-sized *Song of the Earth*, then a ninth symphony, but left his tenth symphony unfinished to avoid the “Curse of the Ninth.” For 10 points each,

[10] Name this composer, who was responsible for Mahler’s superstition about the “Curse of the Ninth” because, ever since this composer’s *Choral* ninth symphony, no composer had finished a tenth symphony.

Answer: Ludwig von **Beethoven**

[10] Mahler's primary occupation was conducting, rather than composing; he directed many of this composer's operas, including *Tristan and Isolde*, *The Valkyries*, and *The Ring of the Nibelungs*.

Answer: Richard **Wagner**

[10] Beethoven and Wagner were composers from what is now this modern-day nation.

Answer: Federal Republic of **Germany** (accept Bundesrepublik **Deutschland**)

15. During this enormous war, a road in Verdun became known as the “Sacred Way.” For 10 points each,

[10] Name this early twentieth-century war caused partly by the recent formation of the German Empire. During this war, Russia, Great Britain, and France formed the Triple Entente.

Answer: **World War I** (accept **First World War**)

[10] The bloodiest battle in World War I was this Douglas Haig-led battle that took place by a French river. This battle saw the first use of a tank and concluded with over one million casualties.

Answer: Battle of the **Somme** (accept **Somme** Offensive)

[10] This type of warfare, which was widely used during World War I, greatly contributed to the death toll at the Battle of the Somme. This form of warfare often included barbed wire strung across “No Man’s Land.”

Answer: **trench** warfare

16. It has been hypothesized that these entities can evaporate over time by emitting Hawking radiation. For 10 points each,

[10] Name these regions of space with a gravitational pull so strong that no particles or light can escape from inside them.

Answer: **black holes**

[10] This term refers to the edge of a black hole, and marks the boundary past which observations cannot be made and escape from the black hole is impossible.

Answer: **event horizon**

[10] After crossing the event horizon, an object would become longer and thinner because of this stretching effect.

Answer: **spaghettification** (accept **noodle** effect)

17. The busiest one of these locations in the United States is Hartsfield-Jackson Atlanta International. For 10 points each,

[10] Name these locations, such as O’Hare International. These locations often require extensive security checks before a traveller is allowed near a runway.

Answer: **airports**

[10] The largest airport serving the Washington DC area is named for this former Secretary of State. While serving under Eisenhower, this man helped organize SEATO.

Answer: John Foster **Dulles**

[10] Pereira and Luckman designed this California airport's Theme Building, known for its two crossing arches. The third letter in this airport's code is meaningless.

Answer: **L**os **A**ngeles International Airport (or **LAX**)

18. Along with its associated satyr play, *Proteus*, the *Oresteia* [oh-reh-STY-ah] trilogy won a dramatic festival for the Greek playwright Aeschylus. For 10 points each,

[10] Name this Greek god, for whom the drama festival was named. This god governed divine inspiration, wine, and merrymaking.

Answer: **Dionysus** (accept **Dionysia** Festival; do not accept Bacchus)

[10] The first play in the *Oresteia* concerns the death of this title king, who sacrifices his daughter, Iphigenia [if-ih-jen-"EYE"-ah], and is killed by his wife Clytemnestra [kly-tem-NEH-stra] after he returns from the Trojan War with Cassandra.

Answer: **Agamemnon**

[10] Cassandra was given this ability by Apollo, but was cursed so that no one would listen to her.

Answer: **prophecy** (accept equivalents, such as **seeing the future**)

19. These disturbances can be longitudinal or transverse. For 10 points each,

[10] Name this type of motion, also called an oscillation. These have periods and frequencies that can be determined by graphing their crests and troughs.

Answer: **waves**

[10] According to the principle of superposition, when the crest of one wave meets the trough of another wave of equal amplitude, the two cancel each other out by the destructive type of this phenomenon.

Answer: **interference**

[10] An interference pattern can result when a wave passes through a narrow slit and experiences this phenomenon, seen whenever a wave bends around the edge of an object. For optical waves, this process displays alternating fringes of light and dark.

Answer: **diffraction**

20. Under this system, Trevor Noah's birth was a crime. For 10 points each,

[10] Name this South-African state of segregation that lasted from 1948 to 1994. Nelson Mandela fought to end this system and upon its repeal became President.

Answer: **Apartheid**

[10] During the Apartheid, an attempt to introduce this language into Soweto schools led to an uprising. Despite this language's widespread use in South Africa, English was still preferred.

Answer: **Afrikaans**

[10] After the end of the Apartheid, South Africa was readmitted to this group of former British territories.

Answer: The **Commonwealth** of Nations