

## 2015 SCOP Novice 6

# Round 2

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### Tossups

1. In this organ, proper contraction of papillary muscles prevents click-murmur syndrome. This organ, whose Purkinje [per-KIN-jee] fibers may be damaged by infarction, contains the Bundle of His. It 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. The study of these institutions led Gustave de Beaumont and Alexis de Tocqueville [TOH-kuh-vill] to write *Democracy in America*. Michel Foucault [mee-SHELL foo-KOH] discussed Jeremy Bentham's idealized version of this institution, Panopticon, in the book (\*) *Discipline and Punish*. Philip Zimbardo simulated one of these in an experiment at Stanford University, whose participants were either guards or inmates. For 10 points, name these institutions that hold convicted criminals.

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

3. This god's crown is adorned with two ostrich feathers, and his 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 was created by John Lewis and merged with one created by Samuel Gompers. Another one of these organizations was led by Terence Powderly and lost its public support after the (\*) Haymarket Square Riots. A large one of these organizations is headquartered in Detroit, and its members work for companies such as Ford. For 10 points, name these organizations, exemplified by the United Auto Workers, which protects the rights of workers.

Answer: labor unions (accept trade unions)

5. This artist worked on the film *Destino* with Walt Disney and painted a dodecahedron in the background of *The Sacrament of the Last Supper*. This creator of *Swans Reflecting Elephants* painted his wife Gala as *The Madonna of Port Lligat*, and painted a bare tree and a (\*) deflated face in another work. Ants crawl across one of the soft-textured clocks in this man's painting *The Persistence of Memory*. For 10 points, name this Spanish surrealist.

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

6. In ancient times, the southern shore of this sea was split between Pontus, Paphlagonia, and Bithynia. The Strait of Kerch connects it to the oil-rich Sea of Azov, surrounding a peninsula 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 ten points, what Asian sea north of Turkey?

Answer: Black Sea

7. Materials made from this substance are classified using the TAS system and the QAPF diagram. This substance forms dacite and rhyolite, and the Deccan and Siberian traps were formed from it. Smooth and rough forms of this substance are designated (\*) pahoehoe [pah-HOH-ay-hoh-ay] and a'a [AH-ah]. Pumice and obsidian glass result from its 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. In this work, Safie escapes a life in Turkey to live with Felix. 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. A former first lady of this country was nicknamed “Steel Butterfly” and fled during the People's Power Revolution. Douglas MacArthur stated “I will return” after being forced to retreat from this country. This country's independence movement was led by (\*) Emilio Aguinaldo, but this country was put under US control after the Spanish-American War. For 10 points, name this 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. A child in this work notices that the sunlight avoids her mother when they go to the forest. 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, and some bacteria can change lactose to lactic acid by this process. The general form of this process yields no ATP but does convert (\*) sugars into byproducts such as carbon dioxide and ethanol. For 10 points, name this process, which can be carried out by yeast and generates foods like cheese, wine, and beer.

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

12. The player can gain one of these items by removing the Hellkite Dragon's tail in *Dark Souls*. In *League of Legends*, activating Shen's "Q" throws a "Vorpal" one at an enemy, and in *Warcraft* lore, Ashbringer is one of these that belongs to Tirion Fordring, a (\*) paladin. Cloud uses a "buster" one of these, and in *Halo*, Elites often wield an "energy" type. 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. This figure promised to display the "Sign of Jonah" and was discovered sitting among the rabbis after disappearing as a child. Martha was rebuked for 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, and the failure of the *Sea Venture* to reach America caused this colony to undergo the (\*) "Starving Time." This colony pioneered elected legislators in its House of Burgesses, and members of this colony's "First Families" included Thomas Jefferson and John Rolfe. For 10 points, name this American colony, whose capital was 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. This figure names a novel by Thomas Mann in which brilliant composer Adrian Leverkühn [LAY-vayr-koon] goes mad, as well as a play by Johann Goethe [GUH-tuh], in which a poodle helps this man woo Gretchen after it transforms into (\*) Mephistopheles. In a play by Marlowe, this man only uses the powers he gets from Lucifer for practical jokes, and realizes he has wasted his contract. For 10 points, name this legendary German man, who sells his soul to the devil for knowledge or skill.

Answer: **Faust** (accept Doctor Heinrich **Faustus**; accept **Adrian** or **Leverkühn** until those words are read)

16. If a function is differentiable at a point, one of these geometric figures can serve as a first-order approximation of the function at that point. These mathematical entities are defined by Euclid's second axiom, or by their gradient and a point. One of these called the (\*) directrix 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; accept degree-one polynomials or equivalents such as first degree polynomials before "degree-one" is read; do not accept "line segment" or "ray")

17. When this D-major piece is played at the Last Night of the Proms, the audience traditionally bobs up and down, then waves British flags and sings the hymn (\*) "Land of Hope and Glory" to its famous trio section. This march premiered in 1905, and is now used annually at Yale University. For 10 points, name this march by Sir Edward Elgar that is commonly played during high school and college graduation ceremonies.

Answer: Pomp and Circumstance Military March No. 1

18. The wave nature of these particles was confirmed by the Davisson-Germer experiment. They are emitted in beta decay and the photoelectric effect, and these leptons drop to the lowest (\*) unoccupied energy state to produce spectral lines. Their movement produces current. For ten points, name these particles that orbit the nucleus and are attracted to protons because of their negative charge.

Answer: electrons

19. During one occupation of this country, citizens used the symbol H7 to show they stood with their king Haakon VII, and during that occupation, Vidkun Quisling ruled a puppet government for Nazi officials. Charles XIII joined this (\*) fjord-filled nation with its eastern neighbor, Sweden. For 10 points, name this Scandinavian country with capital at Oslo.

Answer: Kingdom of Norway

20. This poet wrote about a bird who "bit an Angle Worm in halves / And ate the fellow, raw," and about another creature who "never - in Extremity, / [asked] a crumb - of me." This poet of (\*) "'Hope' is a thing with feathers" wrote about "the Stillness in the Room" around her deathbed, and about a figure who "kindly stopped for me." The reclusive "Belle of Amherst" who wrote "I heard a Fly buzz -- when I died" is, for 10 points, what American poet who wrote "Because I could not stop for Death?"

Answer: Emily Elizabeth Dickinson

## Bonuses

1. 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] In this Toni Morrison novel, Denver tries to help her mother, Sethe, as she deals with her remorse after having killed the title girl to save the child from a life of slavery.

Answer: **Beloved**

2. This composer set a collection of German folk poems to music in *Des Knaben Wunderhorn* and his own poetry to music in "Songs of a Wayfarer." For 10 points each,

[10] Name this German composer who wrote eight symphonies, then the symphony-sized *Song of the Earth*, then a ninth symphony, but left his tenth symphony unfinished.

Answer: Gustav **Mahler**

[10] Mahler's superstition regarding the "Curse of the Ninth" refers to the fact that, since this German composer's *Choral* ninth symphony, no composer had finished a 10th symphony.

Answer: Ludwig von **Beethoven**

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

Answer: Richard **Wagner**

3. For 10 points each, answer the following about literary works that feature characters retreating from illness.

[10] 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 of “The Black Cat” and “The Cask of Amontillado” [ah-mon-tee-YAH-doh].

Answer: Edgar Allan **Poe**

[10] Thomas Mann’s *The Magic Mountain* takes place in a Swiss sanatorium that treats patients with this lung disease, also called “consumption.”

Answer: **tuberculosis** (accept **TB**)

[10] Ten young people tell each other stories after retreating to the country to escape the Black Death in this story collection written by Boccaccio [boh-KAH-chee-oh].

Answer: The **Decameron** (accept **Decamerone**)

4. This religious leader's songs are part of the holy Avestas. For 10 points each,

[10] Name this Persian prophet, whose namesake religion venerates the creator god Ahura Mazda.

Answer: **Zoroaster** (accept **Zarathustra**)

[10] In Zoroastrianism, 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. Zoroastrianism calls this substance Atar and ranks it according to its heat and intensity.

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

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

[10] Name this 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 appearance of a tank and concluded with over one million casualties.

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

[10] America joined World War I in 1917 by sending this John Pershing-led army, which was composed of two million “doughboys.”

Answer: **American** **Expeditionary** **Force**

6. 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)

7. 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**

8. 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 whose syllabary was created by Sequoyah. During Indian Removal this tribe was forced to walk the Trail of Tears.

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

[10] The Cherokee were removed despite the ruling of this 1832 court case. This court case, which was levied against Georgia, found that the state had no place in Native affairs.

Answer: **Worcester** v. Georgia

[10] In response to *Worcester v Georgia*, this seventh president apocryphally said “John Marshall has made his decision; now let him enforce it!”

Answer: Andrew **Jackson**

9. 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**

10. 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: **Human Immunodeficiency Virus**

[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”)

11. 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

12. 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 this method from calculus, the inverse operation of differentiation.

Answer: **integration** (accept word forms, such as **integral** or **integrate**)

13. 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] “Japonism” influenced the style of this French art movement that focused on studies of light and “plein air” [plen air] painting. This movement’s painters included Manet and Mary Cassatt.

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**)

14. 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**



15. 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**

16. 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] Within the chloroplasts, these membrane structures form stacks called grana that house the light-dependent reactions of photosynthesis.

Answer: **thylakoids**

17. 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**)

18. 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**)

19. 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. She 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 one myth, Athena was challenged to a weaving contest by this mortal. After she lost, Athena transformed this woman into a spider.

Answer: **Arachne**

20. These substances can be anodized, such as by galvanizing, in order to build a strong oxide layer around them. 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 and have this property, the ability to be stretched into a thin wire. This property refers to a solid’s ability to deform in response to tensile stress.

Answer: **ductility** (accept word forms, such as they are **ductile**)

[10] Metals cannot be ductile in this state of matter, as their atoms move too freely to form a rigid shape. This state of matter is achieved by melting solids or by condensing gases.

Answer: **liquid**