

# SCOP Novice 4 | Round 1

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## Tossups

1. According to the endosymbiotic [EN-doh-SIM-by-AH-tik] theory, some of these objects were absorbed into others. Their cycle includes the S phase, and the fluid mosaic model describes their boundary. They were named by Robert (\*) Hooke, who found them in cork, for their resemblance to monks' chambers. Cytoplasm [SY-toh-"plasm"] makes up much of the interior of these objects, which have parts called organelles and reproduce in mitosis [my-TOH-sis]. For 10 points, name this smallest unit of life.

Answer: cells (accept prokaryotes or bacteria before "cycle" is read)

2. Francesco Salviati was hanged at this city's town hall, the Palazzo Vecchio, after Giuliano, the son of Piero the Gouty, was killed in this city's cathedral, the Duomo. That Pazzi Conspiracy sought to assassinate (\*) Lorenzo the Magnificent to take over this capital of Tuscany. Pisa and Milan were rivals of, for 10 points, what Italian city, ruled by the Medici family during the Renaissance?

Answer: Florence

3. In this novel, a mechanic claims a dog leash is evidence of his wife's cheating. This novel's narrator discusses tennis shoes over the phone with Klipspringer and sees his cousin sob over a pile of (\*) shirts. George shoots a resident of West Egg in this work, whose protagonist claims to have run over Tom's lover with a car to throw suspicion off Daisy Buchanan. For 10 points, name this novel, narrated by Nick Carraway and written by F. Scott Fitzgerald.

Answer: The Great Gatsby

4. The bicarbonate ion is equivalent to the carbonate ion with an ion of this element added. Tritium [TRIH-tee-um] and deuterium [doo-TEER-ee-um] are isotopes of this element. Between it and electronegative elements like (\*) oxygen and fluorine, a bond named for this element can form. Arrhenius [uh-RAY-nee-uss] defined acids as substances that increase the concentration of this atom's ions. For 10 points, name this gaseous element, the lightest on the periodic table, and the first one.

Answer: hydrogen (prompt on H; prompt on hydronium or H<sub>3</sub>O<sup>+</sup>)

5. This work's pianissimo first movement, Adagio sostenuto [ah-dah-zhee-oh soss-teh-noo-toh], begins with right hand triplets and the direction to play "without dampening," which will actually create dissonance on a modern piano. This work in C-sharp minor is subtitled (\*) "quasi una Fantasia," and its nickname evokes the title phenomenon at Lake Lucerne. For 10 points, name this 14th piano sonata by Ludwig van Beethoven with a nocturnally-inspired name.

Answer: Moonlight Sonata (accept Piano Sonata No. 14 in C-sharp minor before the last sentence)

6. One controversial quote ascribed to this figure gives his approval to Lat, Uzza, and Manat. This member of the Quraysh tribe's sayings are collected as *hadith*. This nephew of Abu Talib embarked on a *Hijra* [heezh-rah] to (\*) Medina from Mecca. His revelation in the Cave of Hira came from the angel Jibreel, and led him to found a religion based on submission to Allah. Sunnis forbid visual depictions of, for 10 points, what primary prophet of Islam?

Answer: Abū al-Qāsim) Muhammad (ibn 'Abd Allāh ibn 'Abd al-Muṭṭalib ibn Hāshim) (do not accept Muhammad Ali)

7. This man commanded a patrol boat sunk by the *Amagiri*, PT-109, during World War II. This author of *Profiles in Courage* declared "I am the Democratic Party candidate for President who happens to be a (\*) Catholic," and at his inauguration, he called on Americans to "ask not what your country can do for you; ask what you can do for your country." For 10 points, name this U.S. President who was assassinated by Lee Harvey Oswald.

Answer: John Fitzgerald Kennedy (accept JFK; prompt "Kennedy" before "inauguration" is read; accept Kennedy after "inauguration" is read)

8. In 2011, a Canadian teenager demonstrated that this planet could cast a shadow on Earth and the Juno probe was launched to study its poles. The Galileo probe observed the comet Shoemaker-Levy 9 colliding with this planet in 1994. In 2000, (\*) Oval BA appeared in this gas giant's South Temperate Belt, near the largest storm in the solar system. The Great Red Spot is on, for 10 points, what largest planet in the solar system?

Answer: Jupiter

9. In 2011, while wearing only his underwear, this man snapped his Achilles tendon while chasing a burglar. This man, whom Conan O'Brien believes is going insane, will be replaced by Soledad O'Brien as moderator of the (\*) National Geographic Bee. On *Saturday Night Live*, Sean Connery terrorizes Will Ferrell's portrayal of this man by misreading category names. For 10 points, name this formerly-mustachioed host of *Jeopardy!*

Answer: Alex Trebek

10. In a work by this author, a woman tries to pull herself out of Hell with an onion. This man created a Grand Inquisitor and opened another work with Rogozhin [rah-GOH-zihhn] meeting the epileptic Prince Myshkin [MIHSH-kihn]. This author of (\*) *The Idiot* wrote a novel that sees a man confess to Sonya that he has murdered the pawnbroker Alyona Ivanovna [ahl-YOH-na ee-VAN-uhv-nuh'z] and her sister. Raskolnikov [rah-SKOHL-nih-kov] was created by, for 10 points, what Russian author of *The Brothers Karamazov* and *Crime and Punishment*?

Answer: Fyodor Mikhailovich Dostoyevsky

11. Eisenstein's criterion tells if certain types of these are irreducible over the rational numbers. If they involve only one variable, these objects will have at most  $n-1$  ["n minus 1"] extrema and  $n-2$  ["n minus 2"] inflection points if they are of degree  $n$ . One over  $x$  is (\*) not this type of expression, because the exponent on the variable must be a positive integer. For 10 points, name this type of mathematical expression, exemplified by quadratics such as  $x$  squared plus  $3x$  minus 5.

Answer: polynomials (accept polynomial expressions, equations, or functions; accept polynomials with integer coefficients; prompt on expressions, equations, or functions)

12. In the 19th century, some of this building's marble sculptures were shipped to England by the Earl of Elgin. The treasury of the Delian League helped fund the construction of this Doric order (\*) temple, whose ceiling and floor were curved to account for an optical illusion, preserving its rectangular shape. Pericles ordered the construction of, for 10 points, what temple to Athena on the Acropolis of Athens?

Answer: The Parthenon

13. This character is rescued by Don Pedro de Menez, and learns about the awfulness of the immortal but senile struldbrugs. This man is mistaken for a Yahoo by the Houyhnhnms [hoo-IN-hin-ums], and is kept as a pet in (\*) Brobdingnag. This sailor observes a conflict between Big-Endians and Little-Endians in Blefuscu and Lilliput, nations of tiny people. For 10 points, identify this character whose namesake "Travels" appear in a book by Jonathan Swift.

Answer: Lemuel Gulliver

14. Theoretically, the price elasticity of this concept is always negative, though Veblen and Giffen goods experience an increase in this as price increases. This concept is theoretically determined by income alone. Its curve has a (\*) negative slope, giving a single equilibrium price at the intersection point with the supply curve. For 10 points, name this economic concept that describes how much of a good consumers want to buy.

Answer: demand (curve)

15. During one of these events, a back brace was controversially given to a woman wearing pink tennis shoes, Wendy Davis. Eric Holder responded to one of these events with a two-sentence letter, answering a question posed by (\*) Rand Paul. The "nuclear option" would change rules to prevent these events in the U.S. Senate, where Strom Thurmond gave one of these for 24 hours. Votes can be delayed by, for 10 points, what type of extended speech?

Answer: filibuster (prompt on speech or things like "speeches given in a Senate")

16. Works written in this language include one about the architects Joseph and Robert, *Billiards at Half Past Nine*. Other novels in this language include one about Oskar Matzerath and a novel about Hans Castorp, who visits his cousin in a sanatorium in the Alps. The (\*) *Danzig Trilogy* and *Siddhartha* were written in this language, as were *Death in Venice* and *The Magic Mountain*. For 10 points, name the native language of Günter Grass [GOON-ter GRAHSS], Hermann Hesse, and Thomas Mann [mahn].

Answer: German (accept Deutsch)

17. This man created two versions of a painting that shows a young John the Baptist worshipping the Christ child. A rocky landscape with a curving road appears behind a woman in a work by this painter of *Virgin of the Rocks*. This artist of (\*) *La Gioconda* also showed twelve men's reactions to Jesus' words in *The Last Supper*. For 10 points, name this Renaissance artist who drew the *Vitruvian Man* and the eyebrow-less *Mona Lisa*.

Answer: Leonardo da Vinci (accept either underlined portion)

18. A golden eagle with tin in its mouth sits on a black marble throne in this location, which "never storms disturb, rains drench, or snow invades." Gates made of clouds allow passage into this home of Hebe [HEE-bee] and Ganymede [GAA-nee-meed], who serve (\*) nectar and ambrosia here. Hestia surrendered her seat to Dionysus in this legendary place, which is ruled over by Zeus. For 10 points, name this mountain home of the Greek gods. Answer: Mount Olympus (accept throne of Zeus before "throne" is read; accept Zeus before "this location" is read)

19. Journalist Elijah P. Lovejoy fled to Illinois from this state after his printing press was destroyed. Executive Order 44 expelled Mormons from this state. It was the only state won outright by Stephen (\*) Douglas in the election of 1860. Its city of Independence was a starting point for the Oregon Trail. For 10 points, name this state, admitted to the Union in 1821 with Maine in a namesake "Compromise," whose capital is Jefferson City.

Answer: Missouri

20. Bose-Einstein condensates only exist close to this condition. The third law of thermodynamics states that in this condition, a perfect crystal has no (\*) entropy. Superfluidity and superconductivity exist mainly near this condition, at which particles have minimal vibrational motion. For 10 points, name this value equal to minus 273.15 degrees Celsius, the coldest possible temperature.

Answer: absolute zero (accept zero kelvins)

## Bonuses

1. In the 1960's, relations between these two nations were strained as Leonid Brezhnev consolidated his power while the other underwent the Cultural Revolution. For 10 points each, [10] Name these two nations, which fought skirmishes in 1969 along their 2,700 mile long Asian border.

Answer: Soviet Union (or Union of Soviet Socialist Republics; do not accept Russia) and People's Republic of China (must have both; do not prompt on one country alone)

[10] Relations between China and the Soviet Union soured over their philosophical differences in this political and economic system, which both nations used. The United States argued that the "domino effect" would lead to the spread of this system in Southeast Asia.

Answer: Communism (do not accept or prompt socialism)

[10] Relations were repaired as part of this policy of Mikhail Gorbachev, which advocated "openness" and relaxed censorship.

Answer: glasnost

2. Answer the following about ghosts in literature, for 10 points each.

[10] A governess tries to protect Miles and Flora from the ghosts of Miss Jessel and Peter Quint in this novella by Henry James.

Answer: The Turn of the Screw

[10] In this Charles Dickens novella, Ebenezer Scrooge is visited by the Ghosts of Christmas Past, Christmas Present, and Christmas Yet to Come.

Answer: A Christmas Carol

[10] This author wrote about Eleanor Vance's possession by ghosts in *The Haunting of Hill House*, but is better known for writing about Tessie Hutchinson in "The Lottery."

Answer: Shirley Hardie Jackson

3. A geometric definition of the dot product is that it equals the magnitude of the first vector, times the magnitude of the second vector, times this function of the angle between the vectors. For 10 points each,

[10] Name this trigonometric function that, for a non-right angle in a right triangle, equals the length of the adjacent side over the length of the hypotenuse.

Answer: cosine

[10] This is the exact value of the cosine of 60 degrees.

Answer:  $\frac{1}{2}$  or 0.5

[10] The cosine function is positive in the first quadrant and this other quadrant of the Cartesian plane. The graph of  $y = x + 1$  does not pass through this quadrant.

Answer: quadrant IV or fourth quadrant

4. This former Oklahoma Sooner recovered from tearing two knee ligaments near the end of the 2011 season, but he lost the 2012 NFL Comeback Player of the Year award to Peyton Manning. For 10 points each,

[10] Name this running back. In 2012, he rushed for 2,097 yards, 9 shy of Eric Dickerson's single-season record, and was named NFL MVP.

Answer: Adrian Peterson

[10] Peterson plays for this NFL team, whose division rivals include the Chicago Bears and Green Bay Packers. This team traded wide receiver Percy Harvin to the Seahawks in 2013.

Answer: Minnesota Vikings (accept either)

[10] Peterson's final run of the 2012 regular season set up a playoff berth-clinching field goal by this Vikings kicker, who set an NFL single-season record with 10 field goals of 50 yards or more.

Answer: Blair Walsh

5. According to one legend, this Tennessee native used a knife to hold off Santa Anna's troops. For 10 points each,

[10] Name this two-time U.S. Representative, the "King of the Wild Frontier," who left his home state to fight in the Texas Revolution.

Answer: Davy Crockett

[10] Crockett was a defender at this mission in San Antonio. After a 13-day siege by Mexican troops, every defender of this fort was killed by Santa Anna's men.

Answer: Alamo (Accept: Mission San Antonio de Valero)

[10] The rallying cry "Remember the Alamo" was shouted during this final battle of the Texas Revolution, in which Sam Houston's army lost only 9 men while capturing Santa Anna.

Answer: Battle of San Jacinto

6. This author described a girl who counts two siblings who "in the church-yard lie" in "We Are Seven." For 10 points each,

[10] Identify this English poet who wrote "five years have passed" in a poem about his sister Dorothy and the title church on the River Wye, "Tintern Abbey."

Answer: William Wordsworth

[10] Wordsworth wrote that "my heart with pleasure fills / and dances with" these golden flowers in a poem that begins "I wander'd lonely as a cloud."

Answer: daffodils

[10] Wordsworth wrote *Lyrical Ballads* with this poet of "Kubla Khan," who wrote "water, water everywhere, / nor any drop to drink" in "The Rime ["rhyme"] of the Ancient Mariner."

Answer: Samuel Taylor Coleridge

7. Urdr [OORD-r], Verdandi [VAYR-dahn-dee], and Skuld live under this ash tree, and four stags eat from its branches. For 10 points each,

[10] Name this “world tree” from Norse mythology

Answer: **Yggdrasil** [IG-drah-zill]

[10] With his side pierced by a spear, this god hung from Yggdrasil [IG-drah-zill] for nine days to gain knowledge of the runes. This “all-father” also sacrificed an eye for knowledge, and was the chief Norse god.

Answer: **Odin** (accept **Wotan** or similar pronunciations)

[10] Lif and Lifthrasir will descend from Yggdrasil and repopulate the earth after this cataclysmic event, in which all nine worlds will be destroyed in flame. This event is sometimes called “the twilight of the gods.”

Answer: **Ragnarök** (accept **Ragnarøkkr**; accept **Götterdämmerung**)

8. Alternation of generations refers to some of these organisms being sporophytes in one generation, then gametophytes in the next, and so on. For 10 points each,

[10] Name these organisms that obtain nutrients through sunlight and are studied in botany.

Answer: **plants** (or **Plantae**)

[10] In vascular plants, this system of dead cells acts as the transport system of nutrients from the roots to the higher portions of the plant.

Answer: **xylem** [ZY-lum]

[10] Xylem is strengthened with this chemical compound in the cell walls. It is the major component of wood.

Answer: **lignin**

9. This painting's title was inspired by the window in the farmhouse between the two subjects' heads. For 10 points each,

[10] Give the title of this iconic painting which depicts the artist's sister and dentist as an Iowa farm couple.

Answer: **American Gothic**

[10] Name the American artist who created *American Gothic*. This Regionalist depicted other scenes of Americana in *Parson Weems' Fable* and *The Midnight Ride of Paul Revere*.

Answer: Grant **Wood**

[10] Wood's satiric work *Daughters of Revolution* includes a rendering of this patriotic American painting by Emanuel Leutze [LOY-tzuh], depicting a military movement that preceded the Battle of Trenton.

Answer: **Washington Crossing the Delaware**



10. For 10 points each, give the following about William Jennings Bryan's attempt to become President in 1896.

[10] Bryan led the Presidential tickets of both the Populist Party, which paired him with Thomas Watson, and this major party, which paired him with Arthur Sewell. Bryan lost to the Republican William McKinley.

Answer: Democratic Party (or Democrats)

[10] Bryan earned his place on the 1896 Democratic Presidential ticket by delivering this speech at the Convention. This speech in support of free silver ends by declaring "you shall not crucify mankind upon" the title object.

Answer: Cross of Gold speech (do not accept "cross" alone)

[10] In the penultimate line of the Cross of Gold speech, Bryan exclaims "You shall not press down upon the brow of labor" this object. Bryan's use of this image was considered sacrilegious by some critics.

Answer: crown of thorns (prompt on partial answer)

11. This figure was born of the Virgin Mary in a stable in Bethlehem. For 10 points each,

[10] Name this religious leader, who was raised as a carpenter by Joseph of Nazareth.

Answer: Jesus Christ (accept either underlined answer; accept Jesus of Nazareth)

[10] When this king of Judea heard that the King of the Jews had been born in Bethlehem, he sent the Magi to spy for him and ordered the execution of babies in the Bethlehem area.

Answer: King Herod I (accept King Herod the Great)

[10] To protect Jesus from the slaughter ordered by Herod in Bethlehem, God told Joseph to take Jesus and Mary to this nation before returning to Nazareth.

Answer: Ancient Egypt

12. The total radius of this structure is about 2,200 miles, slightly more than half of the total radius of the Earth. For 10 points each,

[10] Name this structure, consisting of a liquid "outer" section and a solid "inner" section, found at the center of our planet.

Answer: Earth's core

[10] The solid inner core is believed to be an alloy of iron and this metal, which is often found with iron in meteorites.

Answer: nickel

[10] The rotation of the liquid core is known as the dynamo effect, which contributes to this phenomenon for the Earth. Its namesake poles gradually move and can reverse over time, and are currently a few hundred miles from the geographical poles.

Answer: (geo)magnetic field (or Earth's magnetic field; accept magnetic B-field or magnetic H-field)

13. The impressionist movement inspired classical music as well as visual art. For 10 points each,

[10] Like impressionist art, the impressionist movement in music was born in this European country, home to impressionist Erik Satie [sah-TEE].

Answer: **France**

[10] This composer of *L'isle joyeuse* [LEEL jwah-YOOZ] disliked being called "impressionist." His works, including "Clair de Lune" [clare duh LOON] and *Prelude to the Afternoon of a Faun*, create a mood without relying on traditional tonality to build tension.

Answer: Claude(-Achille) **Debussy**

[10] This composer's impressionist piano pieces include *Gaspard de la Nuit* [gas-PAHRD duh lah noo-EE], though he's more famous for *Boléro* [boh-LAY-roh].

Answer: (Joseph-)Maurice **Ravel**

14. In this poem, the speaker and the title character "paused before a house that seemed / A swelling of the ground." For 10 points each,

[10] Name this poem about a figure who "kindly stopped for me," in which the speaker says, "The carriage held but just ourselves / And Immortality."

Answer: **Because I could not stop for Death** (accept The **Chariot**; accept Poem **712**)

[10] This poet of "Because I could not stop for Death" also wrote "I heard a Fly buzz--when I died" and "Hope is the thing with feathers."

Answer: Emily Elizabeth **Dickinson**

[10] Dickinson declared "then there's a pair of us! / Don't tell! they'd advertise" in this poem, which compares living publically with being "like a Frog."

Answer: **I'm Nobody! Who are you?** (accept Poem **260**)

15. Metairie, a suburb of this city, is connected to Mandeville by the Lake Pontchartrain Causeway. For 10 points each,

[10] Name this Louisiana city, whose Crescent City Connection, a bridge spanning the Mississippi River, was controversially roadblocked in August 2005.

Answer: **New Orleans**

[10] West of New Orleans, up the Mississippi River, is a bridge named for this former Louisiana governor and senator, nicknamed "Kingfish," who was assassinated in 1935.

Answer: Huey **Long**, Jr.

[10] The Huey Long Bridge is in this Louisiana parish, named for the U.S. President who authorized the Louisiana Purchase.

Answer: **Jefferson** Parish (accept Thomas **Jefferson**)

16. In this work, Meletus presents an accusation that Socrates has corrupted the youth of Athens with sophistry; Socrates responds that sophists are supposed to be wise and wealthy, and he knows nothing and is poor. For 10 points each,

[10] Name this work, which depicts the trial of Socrates. It is named for his speech in defense of his actions.

Answer: (The) **Apology**

[10] This student of Socrates and author of *The Republic* wrote *Apology* as the first of his Socratic dialogues.

Answer: **Plato**

[10] After the events of *Apology*, Socrates is condemned to death by drinking this poison.

Answer: **hemlock**

17. In orbital configuration diagrams, these particles are represented by up and down arrows. For 10 points each,

[10] Name this subatomic particle that is often modeled as a “cloud” around the nucleus, and that has a negative charge.

Answer: **electron**

[10] The fourth quantum number for electrons, abbreviated  $m_s$  [“M-sub-S”], describes this parameter and is limited to values of plus and minus one-half. It represents a sort of intrinsic angular momentum.

Answer: **spin** quantum number

[10] This rule states that electrons fill lower energy levels before starting to fill higher levels.

Answer: **Aufbau** principle

18. In this work, the main character sails past the whirlpool Charbydis [kah-rib-diss] and man-eating Scylla [“skill”-ah]. For 10 points each,

[10] Name this epic, in which an Ithacan king returns to his home after the Trojan War.

Answer: **Odyssey**

[10] While sailing past an island inhabited by these creatures, Odysseus stuffed his men's ears with wax and tied himself to a mast so he would not succumb to these creatures' song.

Answer: **siren**(s)

[10] This son of Odysseus travels to Sparta to find news of his father and later helps him get rid of his mother's suitors.

Answer: **Telemachus**

19. A type of magnetism named for this element is also exhibited by cobalt and nickel. For 10 points each,

[10] Name this metal, the primary component of steel.

Answer: iron (prompt on Fe)

[10] That property, ferromagnetism, is displayed up to a temperature named after a scientist with this surname. That man with this surname shared the 1903 Physics Nobel with his wife and Henri Becquerel.

Answer: Curie (accept Pierre Curie)

[10] Above the Curie temperature, ferromagnetic materials exhibit this other type of magnetism. Materials exhibiting it do not form permanent magnets and are *attracted* by magnetic fields.

Answer: paramagnetism (accept word forms)

20. The fates of the remnants of both the Holy Roman Empire and post-Napoleonic France were debated in this city. For 10 points each,

[10] Name this Austrian city, site of an 1814-1815 Congress.

Answer: (Congress of) Vienna

[10] The Congress of Vienna was led by this conservative Austrian diplomat. He was forced to resign in the Habsburg revolutions of 1848.

Answer: Prince Klemens von Metternich

[10] Among the states that revolted in 1848 was this Kingdom, led by Lajos Kossuth. This modern country with capital Budapest was a dual monarchy with Austria until World War I.

Answer: Hungary (accept Austria-Hungary)