SCOP Novice 4 | Round 6

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Tossups

1. **Oxides of this element are used to widen blood vessels. Diazotrophs like rhizobia are organisms that "fix" this element, and are found in the roots of legumes. It is not hydrogen, but the positive end of an amino acid has a group—the (*)** amine group—containing this element. This element is excreted from the body in urea. Ammonia consists of hydrogen and, for 10 points, what element with atomic number 7 and symbol N?
Answer: __nitrogen__ (prompt on __N__)

2. **This man lamented "the lights are going out" in a 1938 speech. In 1940, he said "We shall go on to the end [...], we shall fight on the beaches" after the evacuation at Dunkirk, and later declared "Never in the field of human conflict was (*)** so much owed by so many to so few" to thank the Royal Air Force. For 10 points, name this man, who claimed "an Iron Curtain has descended across" Europe after he served as British Prime Minister during World War II.
Answer: Sir Winston Spencer-__Churchill__

3. **In one opera by this man, Ping, Pang and Pong try to dissuade a youth from entering a riddle contest for the title princess's hand in marriage. In another of his works, the song "Che gelida manina" is sung by the poet Rodolfo to the consumptive seamstress (*)** Mimi. This composer of *Turandot* [too-ran-dott] also wrote the song "Un bel di," [oon bell dee] sung by Cio-Cio San [chee-OH chee-OH sahn]. For 10 points, name this Italian composer of the operas *La Bohème* [lah boh-EHM], and *Madame Butterfly*.
Answer: Giacomo __Puccini__

4. **When this quantity is constant, the molar heat capacity of a monatomic ideal gas is five-halves R. When fluid speed increases, potential energy or this quantity decreases, according to Bernoulli's principle. In gases, this quantity arises from (*)** molecular collisions with the walls of a container. Boyle's law shows that it and volume are inversely related. The pascal is the unit of, for 10 points, what quantity measuring force per unit area?
Answer: __pressure__

5. **In one novel by this author, Westervelt condemns Zenobia's actions, earning the anger of Miles Coverdale. Judge Jaffrey frames Clifford for murder in a novel by this man, in which Holgrave lodges with Hepzibah Pyncheon. Chillingworth befriends the father of (*)** Pearl in a work by this author of *The Blithedale Romance* and *The House of the Seven Gables*. For 10 points, name this man, who wrote about Hester Prynne's disgrace in *The Scarlet Letter*.
Answer: Nathaniel **Hawthorne**

6. **One song by this band notes "My makeup may be flaking/but my smile still stays on." This band, whose guitarist has a Ph.D in astrophysics, reached #1 in the U.S. with "Crazy Little Thing Called Love," but only #6 with a song that begins (*)** "Is this the real life? Is this just fantasy?" For 10 points, name this British rock band, led by Freddie Mercury, whose hits include "We Will Rock You," "We Are The Champions," and "Bohemian Rhapsody."
Answer: **Queen**

7. **William Safire wrote the "Fate has ordained..." speech for Richard Nixon in case this event ended in tragedy. Parkes Radio Telescope received video signal of this event, during which the Command Module was manned by Michael Collins. After the (*)** *Eagle* landed in the Sea of Tranquility, the quote "One small step for a man, one giant leap for mankind" was spoken by Neil Armstrong. For 10 points, name this 1969 event that "won" the Space Race.
Answer: **Apollo 11** mission (accept **first lunar landing**; prompt on "moon landing" or "lunar landing" alone; accept clear-knowledge equivalents and prompt on partial answers; prompt on Apollo (mission))

8. **This rock was quarried on the Scottish island of Ailsa Craig for use in curling stones. Sodium content distinguishes the S and I types of this rock, which forms batholiths like Half-Dome. Unlike the similar (*)** rhyolite, this rock is found under the Earth's surface, making up most of the Earth's continental plates. For 10 points, name this light-colored igneous rock, whose large quartz crystals make it a durable building alternative to marble.
Answer: **granite**

9. **This ritual was first performed by a priest of Melchizedek with objects of "Affliction" and "Blessing," and was later administered at "love feasts." This ritual can be given with the Anaphora, and includes a description of "the (*)** night He was betrayed." In this sacrament, transubstantiation changes the elements of the Last Supper into the body and blood of Jesus. For 10 points, name this holy sacrament, in which Christians consume blessed bread and wine.
Answer: (Sacrament of) Holy **Communion** (accept (consuming the) Sacrament of the **Eucharist**; accept (consuming the) **Blessed Sacrament**; accept (consuming the) **Sacrament of the Altar**; accept (consuming the) **Sacrament of Thanksgiving**; accept (consuming the) **Sacrament of the Lord's Table**; accept **Lord's Supper**; accept (consuming the) **body** and **blood** of **Jesus** (and/or **Christ**) before "body and blood" is read; accept "receiving," "celebrating," or logical equivalents in place of "consuming" in all of the above notes; do not accept or prompt on "sacrament" alone)

10. **In this work, a hunchback dies by choking on a fishbone and the slave girl Morgiana prepares Cassim for burial. One character in this work is carried out of a valley of diamonds by a roc in one of his seven voyages. Shahryar's wife tells him (*)** one story per night, and relates the tales of "Sinbad the Sailor," "Ali Baba and the Forty Thieves," and "Aladdin" in, for 10 points, what collection of stories narrated by Scheherazade?
Answer: **1001 Arabian Nights** (accept either **1001 Nights** or **Arabian Nights**; accept **Arabian Nights'** Entertainment; accept **Book of 1001 Nights**)

11. **This property is the defining characteristic of an Abelian [uh-BEE-lee-un] group. Composition of functions and matrix multiplication do not generally have this property. Subtraction also does (*)** not have this property because 8 minus 5 is 3, but 5 minus 8 is negative 3. For 10 points, name this property that states a+b=b+a ["a plus b equals b plus a"], that is, that swapping the order of the numbers does not change the result.
Answer: **commutative** property or **commutativity**

12. **The Nika Riots broke out in a venue in which these vehicles were raced. Muwatalli II led a force of thousands of these vehicles in the 1274 BCE Battle of Kadesh, the largest battle of these in history. The largest venue for (*)** racing these vehicles was built across the Palatine Hill from the Colosseum in Rome. Hippodromes and the Circus Maximus hosted races of, for 10 points, what two-wheeled horse-drawn carts?
Answer: **chariot**s

13. The speaker of one of this man's poems describes "the latest dream I ever dream'd" where he saw "pale kings and princes too" who cried "La Belle Dame sans Merci / Hath thee in thrall." He wrote "My heart aches, and a drowsy numbness pains my sense" in a poem to a creature (*) "not born for death," and concluded that "Beauty is truth, truth beauty." For 10 points, identify this English poet of "Ode to a Nightingale" and "Ode on a Grecian Urn."
Answer: John Keats

14. This philosopher's school in Croton believed in the transmigration of the soul, advocated silence, and practiced vegetarianism, but refrained from eating beans. According to legend, one of this man's followers, (*) Hippasus, was drowned after discovering that the square root of 2 was not a fraction. For 10 points, name this Greek philosopher and mathematician who names a theorem relating sides of a right triangle with the formula $a^2+b^2=c^2$ ["a squared plus b squared equals c squared"].
Answer: Pythagoras of Samos

15. The 8888 Uprising ["eight, eight, eighty-eight" Uprising] in this country was put down by the State Law and Order Restoration Council, or SLORC. Two years later, the National League for Democracy won general elections in this country, but the NLD's leader was put under (*) house arrest. The winner of the 1991 Nobel Peace Prize, Aung San Suu Kyi [ANG SAN SUU CHEE], leads the fight for democracy in, for 10 points, what Southeast Asian nation officially known as Myanmar?
Answer: Burma (accept Myanmar before mentioned)

16. Hovstad, the editor of *The People's Messenger*, refuses to print Dr. Stockmann's article about the baths in this man's *An Enemy of the People*. In another of this man's plays, Judge Brack reports that Ejlert Lövborg has died after his manuscript is burned by the title woman, (*) *Hedda Gabler*. In another play, Torvald Helmer stifles his wife, Nora, causing her to walk out on her family. For 10 points, name this Norwegian playwright of *A Doll's House*.
Answer: Henrik Ibsen (accept An Enemy of the People or En folkefiende before "this man" is read)

17. In *St. Martin and the Beggar*, El Greco shows the saint with one of these animals, and Donatello sculpted a monument featuring one of these animals, *Gattamelata*. In an Albrecht Durer woodcut about the apocalypse, (*) Conquest, War, Famine, and Death ride on four of these animals. For 10 points, name these animals that Fredric Remington painted and sculpted with cowboys and Indians in works like *Bronco Buster*.
Answer: horses (accept logical equivalents like stallions; do not accept ponies)

18. **This figure's son, Ntikuma [n-tee-koo-mah], stopped this figure from hoarding all the world's wisdom in a tree. He trapped a python, a leopard, a dwarf, and the Mmoboro Hornets, and traded them with the sky god, Nyame [nee-ah-may], for all the (*)** stories of the world. This god's greed led him to tie his web around each of his eight legs, which became very thin when the web was pulled. For 10 points, name this West African trickster god, who took the form of a spider.
Answer: Kwaku **Anansi**

19. **The Patawomeck tribe helped Samuel Argall kidnap this woman; during her captivity, she was baptized and a possible husband, the chief Kocoum, was killed. After taking the name Rebecca, she was introduced to King James. She prevented her father, (*)** Powhatan, from killing an English settler by throwing herself over his body. For 10 points, name this Native American, the wife of John Rolfe, who assisted John Smith's Jamestown colony.
Answer: **Pocahontas** (accept: **Matoaka**; accept **R**ebecca **Rolfe**)

20. **The law of mass action describes the dynamic type of this state. Changes in concentration at this state are calculated via ICE tables, and Le Châtelier's principle states that systems tend toward this condition. The concentration quotient is (*)** 1 at this state, and the self-ionization of water is due to this property between H_3O^+ ["H-three-O plus"] and OH^- ["O-H minus"] ions. Double half arrows represent, for 10 points, what state in which the forward and reverse reactions are the same?
Answer: chemical **equilibrium**

Bonuses

1. Vivian Mercier claimed that, in this play, "nothing happens, twice." For 10 points each,
[10] Name this absurdist play by Samuel Beckett, in which Vladimir and Estragon are disappointed when the title figure never shows up.
Answer: **Waiting for Godot** (accept *En **attendant Godot***)
[10] Samuel Beckett is from this nation in the British Isles, which is also home to the Abbey Theater, John Millington Synge, and Brian Friel [free-ehl].
Answer: Republic of **Ireland** (or Poblacht na h**Éire**ann)
[10] This Irish playwright is the author of *Arms and the Man* and *Mrs. Warren's Profession*. His play *Pygmalion* was adapted into the musical *My Fair Lady*.
Answer: George Bernard **Shaw**

2. Amphorae filled with this substance were given as prizes at the Panathenaic [pan-uh-then-ay-ick] Games. For 10 points each,
[10] Name this important substance used in cooking and as a skin rub in Mediterranean culture.
Answer: **Olive oil** (prompt on oil)
[10] This Greek city was named for a certain goddess because her offering of an olive tree was preferred over Poseidon's offering. This is the capital of modern Greece.
Answer: **Athens**
[10] One Greek type of this foodstuff, retsina, was flavored by the pine resin used to seal it in amphorae. In ancient Greece, consumers of this would dilute it with water.
Answer: (white) **wine** (do not accept red wine)

3. The Stickney crater is a feature on this natural satellite, which, with a radius of only 7 miles, is still the second-largest moon in the inner solar system. For 10 points each,
[10] Name this moon, named for the Greek god of fear. It is one of two moons orbiting its planet.
Answer: **Phobos**
[10] Phobos and Deimos are the two moons of this "red" planet, the fourth-nearest to the Sun.
Answer: **Mars**
[10] Phobos' orbit is slowing down and, Phobos is slowly coming closer to Mars. Astronomers believe that, within a few tens of millions of years, Phobos will pass the Roche limit and tidal forces will cause it to do this.
Answer: **break apart** and become a ring around Mars (or **become a ring** around Mars; accept clear knowledge equivalents; do not accept anything involving crashing into Mars)

4. Early minted examples of these objects were prominent in Lydia; King Croesus is said to have standardized their weight and gold content. For 10 points each,
[10] Name these objects, usually made of a precious or otherwise valuable metal, that are used with banknotes as currency.
Answer: **coin**s
[10] Lydia was a kingdom in this region, whose important ancient cities included Miletus and Troy. The region in modern-day Turkey lies south of the Sea of Marmara from Thrace.
Answer: **Anatolia** or **Asia Minor**
[10] Thrace and Anatolia meet at the Bosphorus strait; this Greek city-state was built at that site in the 7th century BCE. Later, Constantinople was built over the ruins of this city.
Answer: **Byzantium** (accept **Byzantion**; do not accept Istanbul)

5. For 10 points each, give the following about U.S. Senator Benjamin Wade.
[10] Wade served this state in the Senate. Warren Harding was a Senator from this state when he was elected President; he then surrounded himself with a "Gang" of friends from this state, many of whom abused their position for financial gain.
Answer: **Ohio** (accept **Ohio Gang**)
[10] In 1864, Wade and Representative Henry Davis co-sponsored a bill that included an "Ironclad Loyalty Oath" as part of a plan for this process of re-incorporating Southern states into the Union after the Civil War.
Answer: **Reconstruction**
[10] In 1868, as the Senate's President pro tempore, Wade would have become President if this successor of Abraham Lincoln was impeached for violating the Tenure of Office Act.
Answer: **A**ndrew **Johnson** (prompt on Johnson)

6. This woman is killed by her own pistol in a scuffle with Lucie Manette's servant Miss Pross. For 10 points each,
[10] Name this character in an 1859 novel. Her cryptic knitting encodes names of future victims of the French Revolution.
Answer: **Madame** (or **Thérèse**) **Defarge** (prompt on Defarge)
[10] Madame Defarge appears in this novel, in which Sidney Carton says, "It is a far, far better thing that I do, than I have ever done," as he takes Charles Darnay's place at the guillotine. This novel begins, "It was the best of times, it was the worst of times..."
Answer: A **Tale of Two Cities**
[10] *A Tale of Two Cities* was written by this British author of *Great Expectations* and *David Copperfield*.
Answer: Charles **Dickens**

7. This god's consort is Parvati, and he is often represented with blue skin. For 10 points each,
[10] Name this Hindu god of destruction and rebirth, who is often grouped with Brahma and Vishnu.
Answer: **Shiva** (accept **Mahadeva**)
[10] Shiva, Brahma, and Vishnu make up this Hindu "trinity" that represents the cycle of birth, maintenance, and destruction.
Answer: **Trimurti**
[10] Shiva is known as "Tryambaka Deva" [tree-ahm-bah-kah day-vah] because of this extra body part, which represents his spiritual and mystic abilities.
Answer: **third eye** (accept **inner eye**; prompt on "eye")

8. Examples of these include combustion and thermite reactions. For 10 points each,
[10] Name this class of chemical reactions in which heat is released from the system.
Answer: **exothermic** reactions (prompt on **exergonic** reactions)
[10] Under constant pressure, exothermic reactions see a decrease in this quantity symbolized H, a measure of the total energy in a system.
Answer: **enthalpy** (do not accept "entropy")
[10] This law states that the enthalpy change for a multi-step reaction equals the sum of enthalpy changes for the individual steps.
Answer: **Hess**'s law

9. This Romantic composer wrote many programmatic works, including The Swan of Tuonela, part of the Lemminkainen Suite. For 10 points each,
[10] Name this composer, whose symphonic poem Finlandia protested Russian censorship in Finland at the turn of the 20th century.
Answer: Jean **Sibelius**
[10] The Swan of Tuonela includes a solo for the English horn, a woodwind that uses this object to create the vibrations that produce sound. Other woodwinds that use this object include the oboe and bassoon.
Answer: **double reed** (prompt on reed; do not accept or prompt on single reed)
[10] Sibelius' seventh and final work in this form has only one movement, rather than the traditional four. Hector Berlioz's most famous work is one of these compositions with five movements.
Answer: **symphony** (accept **Symphonie Fantastique**)

10. World War II essentially began when this country was invaded by Nazi Germany on September 1, 1939. For 10 points each,

[10] Name this Eastern European country, sandwiched between Germany and Russia, whose capital, Warsaw, fell after four weeks of blitzkrieg.

Answer: **Poland**

[10] Prior to invading Poland, the Nazis signed this secret non-aggression pact with the Soviet Union, agreeing to divide Poland's territory.

Answer: **Molotov-Ribbentrop** Pact (or **Ribbentrop-Molotov** Pact)

[10] The Molotov-Ribbentrop Pact was not the first time Polish land had been divided up; it had been partitioned thrice in the 19th century, when it was unified in a commonwealth with this Baltic state to its north. This modern-day country has capital Vilnius.

Answer: **Lithuania**

11. For 10 points each, give the following about the 2013 Confederations Cup.

[10] The Cup was hosted by this South American country, whose past players include Ronaldo and Pelé. The hosts won the final at the Maracanã [mah-rah-kah-NUH] in Rio de Janeiro.

Answer: **Brazil**

[10] This mohawked 21-year-old Brazilian striker won the Golden Ball as MVP of the Cup. After the tourney, his $76 million transfer from Santos went through.

Answer: **Neymar da Silva** Santos, Júnior (accept either underlined part)

[10] Neymar's transfer was to this Spanish rival of Real [ray-AHL] Madrid, where he joined Messi, Xavi [SHAH-vee], and Iniesta [ihn-ee-ESS-tuh] in blaugrana [blao-GRAH-nah]. This team uses the Catalan motto "més que un club."

Answer: F(utbol) C(lub) **Barcelona** (accept **Barça**)

12. Snell's law describes the angle at which this phenomenon takes place. For 10 points each,

[10] Name this phenomenon in which light changes direction when passing from one medium to another.

Answer: **refract**ion (accept word forms; do not accept "reflection" or "diffraction")

[10] Snell's law states that the ratio of the sines of the angles of incidence and refraction is equal to the reciprocal of the ratio of this quantity for the two media.

Answer: **index of refraction** (or **refractive index**; prompt on n)

[10] Snell's law can be derived from this principle, which states that every point on a wave front can be considered a source of wavelets that spread in all directions.

Answer: **Huygens**' principle (accept **Huygens**-Fresnel principle)

13. This painting depicts famous friends of the artist eating the title meal. For 10 points each,
[10] Name this painting, which shows a table with copious amounts of wine and fruit under a gray-and-orange-striped awning. This painting also features the artist's future wife, Aline Charigot [ah-LEEN shar-ee-GOH].
Answer: **Luncheon of the Boating Party** (or Le **Dejeuner des Canotiers**)
[10] This French artist of *Luncheon of the Boating Party*, *Girls at Piano*, and *Girl with a Watering Can* depicted people in straw hats in his *Bal du Moulin de la Galette*.
Answer: Pierre-Auguste **Renoir** [ren-WAR]
[10] The term "Impressionist" came from this artist's painting *Impression: Sunrise*. This man painted series of waterlilies and haystacks near his home at Giverny [zhee-vair-nee].
Answer: (Oscar-)Claude **Monet** [moh-NAY] (listen carefully; do not accept Manet)

14. This story's narrator believes he hears the sounds of the novel *The Mad Tryst* coming alive during a thunderstorm. For 10 points each,
[10] Name this story, in which Roderick dies of shock at the reappearance of his seemingly-dead sister while their ancestral home crumbles around them.
Answer: The **Fall of the House of Usher**
[10] The sounds that Roderick and the narrator hear while reading *The Mad Tryst* are actually the sounds of this woman clawing her way out of her tomb. She is Roderick's twin sister.
Answer: **Madeline** Usher
[10] "The Fall of the House of Usher" was written by this American author. This poet of "The Raven" wrote a short story about Montresor and Fortunato in "The Cask of Amontillado" [ah-mohn-tih-YAH-doh].
Answer: Edgar Allan **Poe**

15. Identify the following creatures from Norse myth, for ten points each.
[10] Odin had two of these birds, Huginn [HOO-gan] and Muninn [MOO-nin], named for thought and memory. They flew all over the world and reported what they had seen to Odin.
Answer: **raven**s
[10] Ymir [EE-meer] created two of these creatures from his armpits. One of these creatures, named Angrboda ["anger"-boh-dah], is the consort of Loki, who is himself half-Aesir [AY-seer] and half-this.
Answer: **Jotunn** [YOH-tun] (accept **Jötnar**; grudgingly accept **frost giants**; prompt on "giants")
[10] Andvari [OND-vah-ree] was one of these creatures, who lived under a waterfall and had a gold ring. Other examples of these creatures forged Odin's spear and Thor's hammer.
Answer: **dwarf** or **dwarves**

16. Landmarks along this route included Chimney Rock and Independence Rock. For 10 points each,

[10] Name this route to the namesake territory in the Pacific Northwest, which was traveled by many Conestoga wagons during the 1830s.

Answer: **Oregon Trail**

[10] This fort, originally named Fort John, was located in what is now southeastern Wyoming. It was the final Army outpost along the Oregon Trail.

Answer: Fort **Laramie**

[10] One side-route off of the Oregon Trail took pioneers to Utah and on to California; this group of 81 pioneers took that trail in late 1846 and got trapped in snow in the Sierra Nevada mountains. Some survivors in this group resorted to cannibalism to survive.

Answer: **Donner** Party

17. For 10 points, give these terms related to genetic inheritance:

[10] This type of gene is only expressed if the organism has two copies of it, unlike dominant genes.

Answer: **recessive** gene or **recessive** allele or **recessive** trait

[10] The genes for color blindness and hemophilia are much more common in men because the genes for them are only found on this chromosome, of which men have only one.

Answer: **X** chromosome

[10] Blood types A and B exhibit this type of inheritance, since either, neither, or both can be expressed at the same time.

Answer: **co-dominance** (do not accept "incomplete dominance" or "semi-dominance")

18. For 10 points each, give the following about Mikhail Bulgakov.

[10] Bulgakov lived and wrote in this former European country, where his work was frequently censored or banned by Joseph Stalin.

Answer: the **Soviet Union** (accept **U**nion of **S**oviet **S**ocialist **R**epublics, **Sovyetsky Soyuz**, or **S**oyuz **S**ovyetskikh **S**otsialisticheskikh **R**espublik; prompt on "Soviet Russia" if you happen to get that answer; do not accept or prompt on "Russia")

[10] Bulgakov's masterpiece is this novel published after his death. In it, a fictionalized story of Christ and Pilate alternates with a narrative about the devil, Professor Woland, visiting Moscow.

Answer: The **Master and Margarita** (or **Master i Margarita**)

[10] Woland's henchmen include Korovyov, Azazello, and a giant, black one of these animals named Behemoth. A black one of these animals named Pluto is the title character of an Edgar Allan Poe short story.

Answer: **cat**

19. Cannonball stacking inspired a conjecture about the best packing of this type of geometric object; that conjecture was almost certainly answered with the help of computer calculations. For 10 points each,

[10] Name these three-dimensional analogues of circles, whose volume can be calculated by four-thirds pi times its radius cubed.

Answer: **sphere**

[10] That conjecture is named for this mathematician, who is better known for his three laws of planetary motion that were partially derived from the work of his mentor, Tycho Brahe.

Answer: Johannes **Kepler** (or **Kepler**'s conjecture)

[10] The computer calculations collectively form this type of proof, in which a problem is broken into all of its possible cases, then each case is proved individually. Computers were also use to prove the four-color theorem by this method.

Answer: proof by **exhaustion** or **brute force** (do not accept "trial and error"; do not accept "divide and conquer")

20. Ambrose Bierce defined a corporation as "an ingenious device for obtaining" this concept "without individual responsibility." For 10 points each,

[10] Give this business term for net money earned by a company after expenses have been deducted. It can be calculated by subtracting cost from revenue.

Answer: **profit**

[10] Corporations can either hold on to profits, recording them as retained earnings on the balance sheet, or distribute the profits to their shareholders with these payments.

Answer: **dividend**s

[10] A profitable company may find itself the target of an "LBO," or this type of buyout, in which the purchaser takes out loans to finance the purchase and uses their new company's profits to pay back the loan. Generally, this term refers to the practice of taking on debt in an attempt to multiply the return on an investment.

Answer: **leverage** (or **leveraged buyout**; accept word forms)