NEW TRIER SCOBOL SOLO 2010
ROUND 12
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1. About six weeks after skirmishes began in this battle, it was stepped up on what the Germans called Adlertag, or Eagle Day. Germany's enemies considered it successful because it led to the cancellation of Operation Sealion. The military commander in charge of it, who was soon fired because of disagreements with the Prime Minister, was Hugh Dowding. That Prime Minister, who said of this battle that, "Never in the field of human conflict was so much owed by so many to so few," was Winston Churchill. Identify this attempt by Hermann Göring and the German *Luftwaffe* to destroy the Royal Air Force in 1940.
ANSWER: Battle of **Britain**

2. This scientist created a fictional character named Salviati who explained that somebody inside a closed ship cabin cannot detect whether the ship is moving at constant speed or not moving at all in his book *Dialogue Concerning the Two Chief World Systems*. That principle led to a pre-relativistic method of adding velocities, this physicist's namesake reference frame transformations. Another finding of his led to a clock designed by Christiaan Huygens, and stated that the length but not the mass affected the period of a pendulum. This person also made telescopes which allowed him to discover his eponymous moons, the four largest ones of Jupiter. Name this Italian scientist who, according to one of his students, dropped cannonballs from the Leaning Tower of Pisa.
ANSWER: **Galileo** **Galilei** [accept either or both names]

3. Some of the arias associated with this composer are "Nium Mi Tema", "O Figli Miei", (oh FEE-lee MEE-ay) and "Se Quel Guerrier Io Fossi". One opera by this composer is about a former pirate elected Doge (DOHJ) at the same time he learns that the mother of his child has died. Another work by this composer with a libretto by Francesco Maria Piave (pee-AH-vay) is about the tragic love between Alfredo Germont and Violetta Valéry. Another work by this composer begins with the high priest Ramfis telling the warrior Radames (ra-DAHM-ays) that Egypt will fight with Ethiopia, but Radames falls in love with an Ethiopian slave. Name this composer of *Simon Boccanegra*, *Otello*, *Macbeth*, *La Traviata*, and *Aida* (i-EE-duh).
ANSWER: Giuseppe **Verdi**

4. There is historical debate over whether or not this person was born during the Year of the Elephant and whether two men in white took something out of his abdomen when he was a young child. His father died returning home from Gaza before this person was born, and his mother Amina died when he was six. He is called the Seal of the Prophets, and his followers believe that he is the only prophet after Jesus. He prayed in a small cave on Mount Hira, where he claimed to have been visited by the angel Gabriel. At one point, fearing assassination, he traveled with his followers to Yathrib, now known as Medina, a pilgrimage known as the Hegira. Name this seventh century leader who dictated the Koran, the founder of Islam.
ANSWER: **Muhammad**

5. This narrative poem in fifteen books begins by describing the creation of the world and the ages of gold, silver, bronze, and iron. It ends by declaring its writer's immortality and describing a plague, the murder of Julius Caesar, and the rise of Augustus. This poem tells stories such as the welcoming of Zeus and Hermes by Baucis and Philemon and has at times been considered the definitive work of mythology. It explains why mulberries are purple and how the constellation Ursa Major and Ursa Minor were formed from Arcas and Callisto. Name this work written in 8 CE by Ovid unified by its theme of transformation.
ANSWER: _Metamorphoses_

6. This person took notes on Native American behavior titled *The Four Days* which is referred to in a letter to Piero Soderini. Another letter this explorer wrote was titled *Mundus Novus*, and he may have gone from the Gulf of Mexico to the Gulf of Saint Lawrence in 1497 and 1498. Sailing with Alfonso de Ojeda two years later, this explorer found Lake Maracaibo, which reminded him of Venice. This explorer owes much of his fame to a publication by Martin Waldseemüller. Name this explorer, the feminine version of whose name is now shared by two continents.
ANSWER: Amerigo **Vespucci** [accept variations such as Amerigo **Vespucius** or Amerigo **Vespucio**]

7. A reduced EA ratio during this period is diagnostic for damage, and mitral stenosis is a common cause of murmurs during this phase. Seven-eighths of the time, the atria are in this phase, while the closing of the semilunar valves begins this phase in the ventricles. This is the phase of the cardiac cycle when the heart chambers relax and fill with blood. Associated with the lower reading of a person's blood pressure, identify this phase usually contrasted with systole (SISS-toh-lee).
ANSWER: **diastole** [or **diastolic**]

8. The existence of this function for two elements of a ring ensures that the ring is a principal ideal domain. This value can be found by beginning a sequence with the two given numbers with the larger one first and repeatedly adding to the sequence with the difference between the second to last number and the largest multiple of the last number that will leave a positive result. That process is known as the Euclidean algorithm, and if this value is one for two numbers, then the numbers are said to be relatively prime. It can also be calculated by dividing the product of two numbers by their least common multiple. Given the prime factorization of two numbers, this value can be found by multiplying together the set of their common prime factors. Name this value which is the largest value that divides two numbers.
ANSWER: **greatest common factor** [or **greatest common divisor**; or **GCF**; or **GCD**]

9. This character gives birth to Ella Lorena Kennedy. Earlier, her friends learn about an upcoming marriage from Miss Pittypat Hamilton. That news leads this character to marry Pittypat's nephew Charles, and she gives birth to his son Wade after Charles dies. In her third marriage, this character marries a man who became wealthy blockade-running during the Civil War. Name this character who at first loves Ashley Wilkes and eventually manages Tara Plantation and marries Rhett Butler in *Gone With the Wind*.
ANSWER: **Scarlett** **O'Hara** [accept either or both parts]

10. One work by this composer, which he instructed the orchestra to play "in the old-style roguish manner", is based on the peasant folk hero Till Eulenspiegel (OY-len-spee-gull). After basing several works on literary characters, he wrote a work for which he stated that the audience only needed to know that there was a hero fighting his enemies. That symphonic poem, *Ein Heldenleben*, followed *Don Juan*, *Macbeth*, and *Don Quixote*. A popular work by this composer, which opens with *Sunrise*, is based on a work by Friedrich Nietzsche (NEET-chuh) and was used in the film *2001: A Space Odyssey*. Name this composer of *Also Sprach Zarathustra*.
ANSWER: **R**ichard Georg **Strauss** [prompt on **Strauss**]

11. From 1930 to 1962, this issue was overseen at the federal level by Harry Anslinger. In 1954, President Eisenhower organized a five member Cabinet committee to address it. The Supreme Court faced this issue with *Linder v. U.S.*, ruling that parts of the Harrison Act overstepped federal power. In 1973, the BNDD, ODALE, and other agencies were combined into a single agency within the Department of Justice to address it, and this issue became the focus of Nancy Reagan when she was First Lady. During the first Bush Administration, this issue was overseen by former Education Secretary William Bennett and former Florida Governor Bob Martinez, who were popularly called czars. Name this issue now overseen by the ONDCP and the DEA.
ANSWER: illegal **drug**s [accept logical equivalents, such as **narcotics**; accept more specific answers; prompt on **Prohibition**; prompt on **addiction**; do not accept anything mentioning "alcohol"]

12. One play by this writer is introduced by a character based on Machiavelli and features a protagonist whose scheming sets up a duel between Mathias and Lodowick. The first play by this writer opens with Ganymede (GA-nuh-meed) telling Jupiter that his love is worthless, followed by Venus telling Jupiter to pay more attention to Aeneas (uh-NEE-us). Another play by this writer is about a man who learns black magic from Valdes and Cornelius and is about a German legend that was retold two hundred years later by Goethe (GUR-tuh). Identify this playwright of *Dido, Queen of Carthage*; *The Jew of Malta*; and *Doctor Faustus*.
ANSWER: Christopher **Marlowe**

13. In the Diesel cycle, this value is held constant during cooling, which means that step is classified as isochoric. In an isobaric process, pressure is multiplied by the change in this quantity to calculate work. A common form of the Van der Waals equation subtracts n times b from this quantity, and, to calculate enthalpy, this quantity typically is multiplied by pressure. According to both the Ideal Gas Law and Boyle's Law, this quantity varies inversely with pressure when temperature and number of moles is held constant. Name this quantity equal to mass divided by density that typically is measured in some form of cubic units.
ANSWER: **volume**

14. Due in part to the influence of Jean-Jacques Rousseau, this word completes the sentence in the English translation of *The Declaration of the Rights of Man*: "The law is the expression of the general *[this]*." In Michel Foucault's *The History of Sexuality*, the first chapter is titled "The *[this]* to knowledge", while a lecture by William James was titled "The *[this]* to Believe", and this word was paired with *Time* in the title of Henri Bergson's doctoral thesis. In the title of the best-known work by Arthur Schopenhauer, this term is, depending on the translation, paired with either *Idea* or *Representation*. This word often appears after the word "free", and with a different definition it refers to a document that can have its validity determined by a probate. Give this four-letter word associated with freedom of choice.
ANSWER: **will**

15. One type of this procedure is a triply-eponymous method that counts how many times somebody from a stronger sample beats somebody from a weaker sample, quantified as capital U. In addition to the Wilcoxon-Mann-Whitney type, the Wald type of this procedure determines whether or not a parameter exists, and the Yates type corrects the Pearson chi-square type, which, like the type that uses the Student's *t*-distribution, requires finding the degrees of freedom to calculate the p-value necessary to reject the null hypothesis. Give the name common to these procedures which determine whether or not a result is statistically significant.
ANSWER: statistical hypothesis **test**ing of significance

16. The governor of this state just defeated a challenge from its Attorney General Terry Goddard, and one of its senators just defeated Rodney Glassman. In 1997, this state's governor resigned when he was convicted of bank fraud, and in 1988, its governor was impeached for obstruction of justice. In addition to Fife Symington and Evan Mecham, another recent governor of this state is now the Secretary of Homeland Security, Janet Napolitano. Current Governor Jan Brewer is closely associated with its SB1070 law, named the Support Our Law Enforcement and Safe Neighborhoods Act, an anti-immigration measure that has led to boycotts of this state. Name this home state of Senator John McCain.
ANSWER: **Arizona**

17. One character created by this writer demands to be given pap, and he and his wife live in trashcans. Another character from this writer celebrates his 69th birthday by listening to a recording he made thirty years earlier and then making a new tape describing the past year. Another one of this writer's characters, who responds to both the names Abel and Cain, falls down and cannot get up after he becomes blind. That character has a slave named Lucky. Identify this playwright who wrote *Endgame* and *Krapp's Last Tape* and who wrote about Pozzo, Vladimir, and Estragon in *Waiting for Godot*.
ANSWER: Samuel **Beckett**

18. This leader started using capitularies to communicate with his subjects which, after he died, were collected by Ansegisus. He greatly increased his territory both when Wittekind (WIT-tuh-kund) was baptized and when Gerberga and her children fled to Pavia. This leader developed the town of Paderborn, where he worked out an alliance with Pope Leo the Third. He annulled his first marriage with Desiderata (dih-sid-uh-RAH-tuh) before having nine children with his next wife Hildegard. Name this brother of Carloman and son of Pepin the Short who ruled most of Europe and was the first Holy Roman Emperor.
ANSWER: **Charlemagne** [or **Charles I**; or **Charles** the **Great**; prompt on **Charles**]

19. This artist portrayed John the Baptist, Jesus, Mary, and Saint Anne in a work known as the *Burlington House* cartoon. Another work by this painter likely shows Cecilia Gallerani; later artists colored in her veil so that it looks like her hair wraps around her face. That work is *Lady with an Ermine*. Another painting by this artist shows the infant John the Baptist under the care of Uriel while meeting the infant Jesus. The center of that painting shows Mary wearing an aquamarine blue dress, and there are separate versions of it in the Louvre and the National Gallery of London. This artist also painted a portrait of Lisa Gherardini and a depiction of Jesus eating with his apostles. Name this painter of *Virgin of the Rocks*, a *Last Supper*, and the *Mona Lisa*.
ANSWER: **Leonardo** di ser Piero **da Vinci** [accept either underlined part]

20. Before silver processing, photographic development required an organic one of these substances to be treated with bichromate. Francesco Selmi extensively studied inorganic examples of these substances, including the pigment Prussian blue, and those containing radionuclides are usually the eigen-type. A Cottrell precipitator will prevent one of these from forming in a smokestack, while Liesegang rings are the result of coagulation in the gel-type of this substance. Tyndall scattering of light is characteristic of this kind of mixture, which has foam, aerosol, and emulsion varieties. Consisting of a continuous and a dispersed phase, identify this term for mixtures like ruby glass and milk, whose suspended particles are too small to settle out of the solution.
ANSWER: **colloid**s

Read the tiebreaker questions only if there is a tie after the above 20 questions. The first correct answer wins the match.

TB 1. When applied to salts, it is more accurate to express this measurement in a unit called the formal. The prefix OS- is attached to a version of this measurement that accounts for ion dissociation, while in acid-base chemistry, this measurement has largely supplanted normality. Reaction rates are generally found by raising this measurement to the power of the coefficient, and in many chemistry equations it is symbolized by a lowercase C. Calculated as amount of solute over volume of solution, name this measure of solution concentration expressed as moles per liter.
ANSWER: **molarity** [accept **molar concentration** before it is mentioned; prompt on **concentration**; do not accept "molality"]

TB 2. Some early works by this painter are set at Trouville and Sainte-Adresse. His wife stands in the doorway in *The Artist's House at Argenteuil*, and she plays a more prominent role in *La Promenade*, which is also called *Woman with a Parasol*, and another work which shows her sitting on a bench in front of a man dressed in black. This artist also made several paintings of poplars on the Epte River, the British Parliament buildings, and Rouen Cathedral. Name this French impressionist husband of Camille who moved to Giverny late in life famous for his paintings of haystacks and water lilies.
ANSWER: Oscar Claude **Monet**

TB 3. Name the mode of transportation that…was nicknamed the "deuce and a half" by American G.I.s in World War II; is the reason their are weigh stations along interstate highways; and is driven over the ice roads of Alaska on a popular History Channel show.
ANSWER: **truck**s [or **semi**-trailers, or **big rig**s]