

New Trier Scobol Solo 2013

Round 10



1. In this novel, it is said that one character would never be a lion but is an amazingly good jackal. Another character in this novel gives a couple a gold coin after his carriage runs over their son. When that character, Marquis Evrémonde, is murdered in his bed, the assailant leaves a note signed “Jacques”. In this work, there is a strong resemblance between Sydney Carton and Charles Darnay, both of whom love Dr. Manette’s daughter Lucie. Identify this novel by Charles Dickens, set in London and Paris during “the best of times [and] the worst of times”.

Answer: A *Tale of Two Cities*

2. Among the byproducts of this process are MSG and the artificial butter flavoring diacetyl [die-uh-SEE-tul]. Eduard Büchner received the 1907 Nobel Prize for extracting the enzymes that perform this process, which regenerates the two NAD⁺ molecules needed to sustain glycolysis. Commercially important genera that perform this process include *Saccharomyces* and *Lactobacillus*, and the Pasteur effect explains how oxygen inhibits this process. There are lactic acid and alcohol pathways for what anaerobic process used to make foods like yogurt, sauerkraut, and wine?

Answer: fermentation [accept word forms; prompt on anaerobic (cellular) respiration]

3. The Shimer puzzle refers to the fact that this quantity fluctuates more than theoretical predictions of the Mortensen-Pissarides [pis-sar-eedz] model. This quantity is typically placed on the x -axis of the Beveridge curve, which compares this to vacancy rates. Milton Friedman explained how this quantity could increase along with inflation, which weakened reliance on the Phillips curve. The structural form of this quantity tends to be a long-term problem, as opposed to the seasonal form which is due to some work only being available in the summer or only in the winter. Name this quantity that measures the percentage of people who do not have, but are looking for, a job.

Answer: unemployment rate

4. He was the first president to appoint William Wirt as Attorney General, and Wirt argued both *Gibbons v. Ogden* and *McCulloch v. Maryland* while this man was president. This president’s predecessor signed a law creating the Second Bank of the United States, which was blamed for an enormous financial panic during this president’s first term, which still became known as the Era of Good Feelings. Name this president whose Secretary of State, John Quincy Adams, succeeded to the presidency after developing this president’s namesake foreign policy doctrine.

Answer: James Monroe

5. Apomixis makes the stamen this type of structure in the common dandelion. Prior to the discovery of melatonin [meh-luh-TOH-nin], the pineal gland was thought to be one of these in mammals. The mitochondria of *Giardia* [gee-AR-dee-uh] parasites bear this relationship to mitochondria, and the teeth of whale sharks can also be described by this term. The eyes of cave-dwelling fish and salamanders are often this type of structure, also seen in the pelvises of snakes, the wings of ostriches, and the human appendix. Identify this term for an organ that served a role in an ancestor species but no longer has a function.

Answer: **vestigial** structures [prompt on **non-functioning**, **non-working**, and anything conveying a similar idea]

6. These people were responsible for the Affair of the Placards, and a war that these people fought in was started by the Massacre of Vassy, which targeted this group. The name used for this group was originally used for opponents of Charles III of Savoy in Geneva. Thousands of these people were massacred by order of Catherine de Medici on Saint Bartholomew's Day in 1572. Their churches were ordered destroyed by Louis XIV in Fontainebleau, though this group's religious freedom was ensured by Henry IV's Edict of Nantes. Identify these French Calvinist Protestants.

Answer: **Huguenots** [accept **Protestant** Reformed Church of **France** or **French Protestants** before the last two words]

7. This character dreams about a mountain falling on him, and he then dreams about an earthquake followed by lightning that burns everything. Before that, this character tells his mother about separate dreams in which he falls in love with a meteor and an axe. In the Cedar Forest, this man is aided by the sun god Shamash in killing the giant Humbaba, and he receives advice from one of the few survivors of the Great Flood, Utnapishtim. This man slays the Bull of Heaven after rejecting Ishtar's marriage proposal, and he mistakenly kills his friend Enkidu. Name this king of Uruk, the title character of a Sumerian epic.

Answer: **Gilgamesh**

8. Though the Buffalo Soldiers were formed in Kansas, much of their service was done at Fort Davis and Fort Clark in this state. Part of its eastern border is formed by the Sabine River, and a region of its southern border is called the Big Bend. The southernmost point of this state, the location of the Battle of Resaca de la Palma, is the city of Brownsville. The town of Lubbock is just south of its panhandle, which includes Amarillo [aa-muh-RIL-oh]. Its largest metropolitan area contains Plano, Irving, and Fort Worth. Name this state that, in addition to Dallas, contains the city of San Antonio, home of the Alamo.

Answer: **Texas**

9. Mersenne primes are one less than powers of this number. If taking the derivative of a function this many times at a point gives a result of zero, and the first derivative changes signs, the point is an inflection point. For a convex polyhedron, this is the Euler [OY-lur] characteristic, which means that it equals the number of vertices minus edges plus faces. In graph theory, this is the number of vertices connected by an edge. Polynomial equations with this degree are called quadratics. Name this smallest prime number, multiples of which form the set of even numbers.

Answer: **2**

10. One of this composer's works is a set of six songs for solo piano, *Moments Musicaux*. A song cycle by him depicts a miller who becomes obsessed with the color green and dreams about flowers rising from his grave. In addition to *Die Schöne Müllerin* [dee SHUR-nuh mur-LAIR-in], he wrote a piano quintet whose fourth movement is a set of variations on his earlier *Die Forelle* [dee for-AY-luh]. This man's incidental music to *Rosamunde* is suggested by some to be the finale to his 8th symphony, which has only two complete movements. Name this composer of the *Trout Quintet* and an *Unfinished Symphony*.

Answer: Franz (Peter) **Schubert**

11. Two people who bought stock in this company based on insider knowledge of Berkshire Hathaway and 3G Capital plans in 2013, Brazilian brothers Rodrigo and Michael Terpins, paid millions of dollars in fines. Secretary of State John Kerry's wife used to be married to the son of the head of this company. Bernardo Hees became the head of this company after it was purchased in June 2013. Because Hees used to head Burger King, McDonald's is ending its relationship with this company. This company headquartered in Pittsburgh owns Ore-Ida. Name this company that often uses the number 57 and which makes ketchup.

Answer: H. J. **Heinz** Company

12. This person experimented with Pierre-Simon Laplace [luh-PLAHSS] on specific heats; they found that animals and flames received the same amount of energy from given compounds. This person also repeated Cavendish's and Priestley's air experiments, naming hydrogen and using the term "azote" [AY-zote] to refer to nitrogen. He included light and caloric in his list of elements, which appeared in a textbook that included his statement of the law of mass conservation. Name this scientist, guillotined during the French Revolution, who disproved phlogiston [fluh-JISS-tun] theory and became known as the Father of Modern Chemistry.

Answer: Antoine(-Laurent) **Lavoisier**

13. This event was preceded by an ineffective air raid of eight disguised B-26 bombers as part of Operation Puma. Changes to the original plan for this event made retreat into the Escambray Mountains impossible, and its failure led to the resignation of Allen Dulles. During this event, paratroopers failed to block a road to Playa Larga [PLY-ah LAR-gah] after their equipment landed in a swamp, and at Playa Girón [PLY-ah hee-ROHN], a group of exiles in Brigade 2506 were defeated. After this failed invasion, a thank you note was sent to the United States by Che Guevara. Name this failed 1961 invasion of Cuba ordered by the Kennedy administration.

Answer: **Bay of Pigs** Invasion [or Invasión de **Bahía de Cochinos**; accept Invasión / Batalla de **Playa Girón** before “Playa Girón”; accept Operation **Puma** before it is mentioned; prompt on Operation **Falcon** or Operation **Zapata**]

14. In this work, Dolphus Raymond pretends to be drunk in order to explain living with his black mistress. A character in this book loses his pants while escaping from a house but later returns to find the pants mended and waiting for him. Another character, who is from Meridian, Mississippi, stays with his Aunt Rachel when he is in Maycomb, Alabama. In this novel, Bob Ewell accuses Tom Robinson, a black man, of raping his daughter. Boo Radley is a source of curiosity to Jem and Scout, the children of Atticus Finch, in what novel by Harper Lee?

Answer: ***To Kill a Mockingbird***

15. Several works in this city were designed by Flaminio Ponzio, including the Big Fountain at Acqua Paola and the house that is now the site of Galleria Borghese [bor-GAY-zay]. The largest unreinforced concrete dome, which has an opening in its center, is in a now-Catholic church in this city. Its Trinità dei Monti Church is at the top of its Spanish Steps, while its Gemonian stairs led to its forum, which housed the Temple of Vesta. This city also contained Circus Maximus next to the Palatine hill. Name this city in Italy that contains the Pantheon and Colosseum, and which surrounds Vatican City.

Answer: **Rome**, Italy [or **Roma**, Italia]

16. The Conservative Party in this country was weakened in the late 19th century over one region’s decreased funding of Catholic schools, a problem that was solved by Wilfrid Laurier. That region in this country had earlier been the site of revolts headed by Louis Riel [ree-EL], who was hanged. Its first prime minister, who resigned after being accused of favoring Hugh Allan for a railroad project, was John Macdonald. Name this country that has recently been headed by Kim Campbell, Paul Martin, and Stephen Harper, and which—though primarily English-speaking—allows French to be the official language of its province of Quebec.

Answer: **Canada**

17. In one poem, this author describes the title concept as a “vulture, whose wings are dull realities”. Another of his poems tells of the “Naiad airs” that brought the narrator “To the glory that was Greece / and the grandeur that was Rome”. This writer of “Sonnet – To Science” described a love “stronger by far than the love / Of those who were older than we” in a poem in which the title character lives “in a kingdom by the sea”. This poet of “To Helen” described a “rapping” at his “chamber door” in a work about a bird that says “Nevermore”. Name this poet of “Annabel Lee” and “The Raven”.

Answer: Edgar Allan **Poe**

18. Calculations for the behavior of electrons in these substances assign the electrons an effective mass that varies inversely with the second derivative of the electric field and has nothing to do with actual mass. The two carriers in these materials cancel each other out during the recombination process. These substances used in photovoltaic cells typically have band gaps between 0.1 and 10 electron volts where no electrons can exist. Some of these materials conduct holes instead of electrons, and are known as *p*-type. Name these substances that can be doped to improve efficiency and which are often based on germanium or silicon.

Answer: **semiconductors**

19. Howard Belsey’s hatred of this painter is central to the plot of *On Beauty*. A stunned woman in a red dress on the right of one of his paintings spills something from a gold goblet. Hebrew text in the upper right of that painting is written in columns instead of right to left. Many men in white ruffs are enthralled by the exposed musculature of a man’s forearm in one of his paintings. Another work by this artist shows a military company headed by Frans Banning Cocq. Identify this Dutch artist of *Belshazzar’s Feast*, *The Anatomy Lesson of Dr. Tulp*, and *The Night Watch*.

Answer: **Rembrandt** (Harmenszoon **van Rijn**) [accept either underlined portion]

20. One text in this religion describes the soul’s journey towards God by reaching one of the title locations “of True Poverty and Absolute Nothingness”. That book is *The Seven Valleys*. This religion’s main theological text is the *Kitáb-i-Íqán*, and it was led by Shoghi Effendi until the establishment of the Universal House of Justice. Adherents believe in the unity of God, religion, and humanity, and in the revelation of God’s nature through prophets such as Jesus and Muhammad. Name this faith founded by a Persian born with the name Mírzá Husayn-Alí Núrí, who was heralded by the Báb and changed his name to Bahá’u’lláh.

Answer: **Bahá’í**

TB. A character in this work throws a prom party, but later abandons the party to talk about fascism with Harry Minowitz. A black doctor in this work has three sons: Hamilton, Karl Marx, and Willie, though he is closest with his daughter Portia. Bubber accidentally shoots Baby Wilson in this work. In this novel, Antonopoulos' brother forces him to move to a sanatorium, which deeply saddens another deaf character, who later commits suicide. In this novel, Biff Brannon runs a cafe which Mick Kelly, Jake Blount and Joseph Singer all frequent. Name this novel by Carson McCullers.

Answer: *The **Heart is a Lonely Hunter***

TB. This king often feuded with Charles James Fox, who resigned after this king stopped the East India Bill. This son of Frederick, Prince of Wales, succeeded his grandfather as King of Great Britain and of Ireland just before this man married Charlotte of Mecklenburg-Strelitz. One of the Acts of Union made him the King of the United Kingdom, and he came to power during the Seven Years' War. Prime ministers who served under this king included Lord Shelburne, William Pitt the Younger, and Lord North. Name this leader who was king from 1760 to 1820, ruling England when it lost its American colonies.

Answer: **George III** [prompt on **George**]

TB. Identify the color that describes the knight beheaded by Sir Gawain, names a political party dedicated to environmentalism that has run Ralph Nader for president, and is the color of both emeralds and grass.

Answer: **green**