

# NEW TRIER VARSITY 2009

## ROUND 9



1. One of this man's works features a horse and elephants marching in a line, as the titular figure cowers in the lower left-hand corner. That work, inspired by an identically-titled work by Bosch, is titled *The Temptation of St. Anthony*. Another work by this artist shows him stretching his hand towards the viewer as he paints and is titled *Impressions of Africa*, while yet another features two tigers jumping out of a fish's mouth towards a sleeping nude woman, *Dream Caused by the Flight of a Bee Around a Pomegranate*. His most famous work features golden cliffs in the corner, and ants marching over one of the main objects in the lower-right corner it. Name this artist whose *The Persistence of Memory* depicts melting clocks.

ANSWER: Salvador Domingo Felipe Jacinto **Dalí** i Domènech

2. The title character of this work once threatened to burn a classmate's hair. In Secretary Falk's former estate, one character is admonished to return with "vine leaves in [his] hair" after writing a history book about the future. Another historian writes about medieval domestic crafts. Berta tends to the title character, who insults Aunt Julie's hat and has a great disdain for Thea Elvsted. She later throws a manuscript on the fire and is confronted by Judge Brack, who knows that one of her father's pistols was used in the suicide of Eilert Løvborg. Name this Henrik Ibsen play about George Tesmen's manipulative wife, who might be pregnant when she shoots herself in the temple.

ANSWER: **Hedda Gabler**

3. This body's exocrine component, arranged in its namesake acini, is composed of centroacinar and basophilic cells, which secrete bicarbonate and other enzymes. Its endocrine component is composed of four kinds of cells, named after Greek letters. A common autoimmune disease disrupts function in this organ, often manifesting as ketoacidosis. Cancer in this organ may be treated by the Whipple procedure, which allows blood to pass to the duodenum despite removing the head of this organ. Name this digestive and endocrine organ which produces glucagon and insulin.

ANSWER: **pancreas**

4. Grenville M. Dodge led the creation of this entity, which was opposed by the Government Bridge. Asa Whitney was one of the first people to propose it, but it was brought to fruition by Charles Crocker, Mark Hopkins, Collis B. Huntington, and Leland Stanford. That group, the Big Four, financed this dream of Theodore Judah who saw it completed by the "Celestials," some Chinese immigrants, before its end at Promontory Point, Utah with the driving of the Golden Spike. Name this transportation network, constructed from 1863 to 1869, by Central Pacific and Union Pacific that connected the coasts.

ANSWER: First **Transcontinental Railroad** [or **Pacific Railroad**; or **Overland Route**]

5. This composer set Robert Louis Stevenson poems, including "Whither Must I Wander?" in his *Songs of Travel*. The first and longest of this composer's symphonies includes text from *Leaves of Grass*, while each of the five movements of this composer's seventh symphony open with quotes, the last of which begins "I do not regret this journey," from the journal of Robert Scott. This composer of *Sea Symphony* and *Sinfonia Antarctica* is also known for his opera *Sir John in Love*, which includes the *Fantasia on Greensleeves*. Name this British composer of *Fantasia on a Theme by Thomas Tallis*.

ANSWER: Ralph **Vaughan Williams**

6. One of this writer's works features Prime Minister Proteus and King Magnus and is critical of both monarchy and democracy. In another work by this writer, the commissioner Mrs. Baines accepts a donation from the whiskey distiller Horace Bodger, and Billy Walker asks "What price salvation?" That play's heroine is a member of the Salvation Army. In another play by this writer, there are many comic mispronunciations of the name of a title character's nurse, Ftatateeta. Another work by him features a bet between Colonel Pickering and Henry Higgins. Name this Irish playwright who wrote *The Apple Cart*, *Caesar and Cleopatra*, *Major Barbara*, and *Pygmalion*.

ANSWER: George Bernard Shaw

7. This man's essays are collected in *A Way of Looking at Things*, and he interviewed twenty-nine octogenarians from California in *Vital Involvement in Old Age*. While in California, he observed the Yurok Indian tribe, and he analyzed satyagraha in a work subtitled *On the Origins of Militant Nonviolence*. He came up with dichotomies like "generativity vs. stagnation," "trust vs. mistrust" and "industry vs. inferiority," and he also wrote *Childhood and Society*. Name this Danish-German-American psychologist who wrote *Young Man Luther* and *Gandhi's Truth* and posited the "Eight States of Psychosocial Development" and the "identity crisis".

ANSWER: Erik Erikson

8. If the discriminant of this phenomenon's auxiliary equation is positive, this effect is said to be over-present, while a zero discriminant gives the critical type. Applied to an oscillator, this phenomenon is equivalent to one present in RLC circuits, and exponentially decaying oscillations are present when the namesake coefficient of this phenomenon is less than the product of the maximum amplitude and the spring constant. This phenomenon can be modeled by the equation  $m s^2 + b s + k = 0$ , where  $b$  is the namesake coefficient. Name this phenomenon characterizing motion that eventually trails off, such as that contrasted with simple harmonic motion.

ANSWER: damping [or damped simple harmonic motion/oscillation; accept word forms; prompt on harmonic motion/oscillation; do not accept or prompt on "simple harmonic motion" or "SHM"; accept dampening or word forms thereof]

9. This ruler put down a revolt led by Yemelyan (eh-MEE-lee-ahn) Pugachev, placed him on public display in a cage, and placed his head on a pike after his execution. Helped to power by Gregory Orlov, this leader defeated Mustafa III in one Russo-Turkish War and then maintained the earlier gains in another one. One of this leader's supporters, who may have built fake towns in order to impress this person, was Gregory Potemkin. This ruler passed laws further enslaving serfs despite being a big supporter of Enlightenment ideas. Name this leader who gained power in a coup against her husband, Peter III.

ANSWER: Catherine the Great [or Catherine II]

10. In this musical, one character slaps a hooker's thigh while imploring others to "grab some Christmas cheer". Earlier, three characters break into a church. A trio of female singers warns the audience that "My Boyfriend's Back", and, after his daughter dies, the main character sings "Fallen Angel". This musical, whose set features Ray Stieglitz-style backdrops, begins with an unnamed Frenchman singing "Ces Soirées-Là" and features characters like Bob Gaudio, Nick Massi, Tommy DeVito, and even Joe Pesci. The title characters perform numbers like "Rag Doll", "C'Mon Marianne", "Walk Like a Man", and "Sherry" before their induction into the Rock 'n' Roll Hall of Fame. Name this winner of the 2006 Tony Award for Best Musical, a jukebox musical that tells the true story of Frankie Valli and the Four Seasons.

ANSWER: Jersey Boys

11. This value is often determined experimentally by finding the reaction rate at different temperatures, then plotting the logarithm of the rate constant against the reciprocal of temperature and finding the slope of the line of best fit. A relatively low value of this indicates that a greater proportion of colliding reactants will result in reactions. It appears in the numerator of the exponent of the Arrhenius equation, and catalysts work by lowering this value for particular reactions. Name this value denoted as  $E_{\text{sub-A}}$ , that measures the minimum energy needed for a reaction to occur.

ANSWER: **activation energy** [accept  $E_{\text{sub-A}}$  before it is mentioned]

12. In one short story by this author, a prisoner in the Spanish Civil War lies about the whereabouts of his leader, only to have his leader move, making his lie true. In addition to “The Wall”, he wrote *Repreive*, the final novel in *The Roads to Freedom*. He created Hugo, who murders Hoederer, in *Dirty Hands*, and Roquentin, a historian researching an aristocrat in *Nausea*. Orestes inspired his *The Flies*, and he wrote about Garcin, Estella, and Inez, who are in a room decorated in the Second Empire style, in a play with the line “Hell is—other people!” Name this French existentialist who wrote *Being and Nothingness* and *No Exit*.

ANSWER: Jean-Paul Charles Aymard **Sartre**

13. This event involved the cousins George and Charles Elliot and was precipitated by the Kowloon Incident, in which murder and vandalism went unpunished. Some people blame this event on Commissioner Lin, who insisted on strict law enforcement and wrote a letter addressed to Queen Victoria that ended up being published. Lin destroyed what he referred to as “foreign mud”. This war ended with the Treaty of Nanking, which gave Hong Kong to the British and made it easier for the British to trade in China. Name this war which lasted from 1839 to 1842, fought over the smuggling of a particular drug.

ANSWER: **First Opium War** [accept First Anglo-Chinese War; prompt on Opium Wars; prompt on Anglo-Chinese Wars]

14. A key conversation in this novel takes place over a meal of sirloin and asparagus, while two men watch the play “Under the Gaslight” in another scene, not knowing that they love the same actress. One of those men, a fancy travelling salesman, provides the title character a lavish lifestyle unlike her hometown of Columbia City. In a new city without Charles Drouet, that protagonist’s career improves greatly while her husband George Hurstwood descends into poverty and gambling before committing suicide in a flophouse. Name this controversial novel about a rural Midwestern girl in an urban setting named Caroline Meeber, the debut novel of Theodore Dreiser.

ANSWER: **Sister Carrie**

15. This mythological figure fathered Agrius and Latinus, and he defeated one enemy by first giving him wine from the priest Maron. This man captured Helenus, who told him how to end the siege of a walled city. This figure was killed by one of his less famous sons, Telegonus, whose mother transformed some of this man’s crew into swine. Name this mastermind of the Trojan horse, father of Telemachus, and husband of Penelope, who reigned at Ithaca and was the subject of a Homeric epic.

ANSWER: **Odysseus**

16. Discovered using a calcite crystal, a law governing materials that cause this phenomenon states that the intensity is proportional to the square of the cosine of the angle between those materials, and is called Malus’s law. The elliptic type of this phenomenon occurs to waves of different amplitude. This phenomenon can occur by long hydrocarbons selectively absorbing light, and its linear variety consists of waves vibrating only in this property’s namesake plane. Name this phenomenon in which transverse waves always oscillate in the same direction at any given point.

ANSWER: **polarization** of light waves [accept word forms]

17. This work cites Akbar the Great as an example of a compassionate tyrant, and it notes that when Man fails to see Diversity, he loses the ability to conceive of it. One section of this work discusses the importance of Individuality, and describes it as “one of the components of well-being”, and in that section, this work takes a notable stance against the principles of the Calvinist view of self-will. One of the most famous ideas to arise from this work is the idea that “the only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others”, known as the Harm Principle. Name this work of Utilitarian political philosophy written by John Stuart Mill.

ANSWER: On Liberty

18. This nation’s Asha-Rose Migiro works under Ban Ki-Moon as UN Deputy Secretary General, and in 2009 it hosted the signing of the East Africa common market protocol, being the largest country by area of the five members. Corruption involving the awarding of an electricity contract led to the resignation of its Prime Minister Edward Lowassa in 2008. This country’s main political party is the Chama Cha Mapinduzi, which was founded by Julius Nyerere (NI-yuh-RAY-ray), who led the merger of this country in 1964. In 1994, this country moved its capital inland to Dodoma from Dar Es Salaam. Name this country formed from the merger of Zanzibar and Tanganyika.

ANSWER: United Republic of Tanzania [or Jamhuri ya Muungano wa Tanzania]

19. With the usual metric, a set is compact if and only if the set is bounded and has this property, according to the Heine-Borel theorem. If a set has this property, then its complement consists entirely of interior points, and sets of this type contain all of their accumulation points. If a set has this property under a particular operation, then the result of that operation on two elements of the set produces an element of the set. Intervals with this property contain their boundary points. Name this property of sets that, for intervals, is denoted with square brackets.

ANSWER: closure [or closed, etc.]

20. This man became the Grand Secretary of the Brotherhood of Locomotive Firemen in 1880, and also founded the American Railway Union. This author of *Walls and Bars* opposed World War I and, during the Palmer Raids, he was arrested under the Espionage Act of 1917. This founder of the Industrial Workers of the World had previously been defended by Clarence Darrow after he was arrested under the Cleveland administration for his namesake “Rebellion”—the Pullman Strike. He lost Presidential elections in 1900, 1904, 1908, 1912, and 1920. Name this longtime Socialist leader from Terre Haute, Indiana.

ANSWER: Eugene Victor Debs