

NEW TRIER VARSITY 2009

ROUND 4



1. It states "Travelling is a fool's paradise" and commands the reader to "Trust thyself". For 10 points each:

[10] Name this essay that begins by defining genius and cites Socrates, Shakespeare, and Scipio as those who typify the title quality of individualism.

ANSWER: "**Self-Reliance**"

[10] "Self-Reliance" was written by this Transcendentalist who gave the speech "The American Scholar" and wrote the poem "Concord Hymn".

ANSWER: Ralph Waldo **Emerson**

[10] Emerson recalls fallen soldiers from the Revolutionary war in this poem, dedicated to a Massachusetts town.

ANSWER: "**Concord Hymn**"

2. In 1454, the Peace of Lodi was signed, ending years of war between several major Italian cities for control over northern Italy. For 10 points each:

[10] Florence, one of the signatory cities, was ruled by this banking family led by Cosimo and later Lorenzo the Magnificent.

ANSWER: **Medici** family

[10] Francesco Sforza ruled from 1447 to 1466 in this city that also signed the treaty. It was later ruled by the French and both the Austrian and Spanish Habsburgs after Sforza died.

ANSWER: **Milan** [or **Milano**]

[10] While years of fighting ended in Italy in 1454, a battle in this town the next year started the Wars of the Roses, which engulfed England in internal strife for most of the next thirty years.

ANSWER: Saint **Albans**

3. This painter created *Allegory of the Holy League* in addition to *El Espolio*. For 10 points each:

[10] Name this Renaissance humanist who resided in Spain, painting *View of Toledo*.

ANSWER: El **Greco** [or Domenikos **Theotokopoulos** Cretan]

[10] El Greco's style was a fusion of Western Europe's artistic tradition with the style of this Eastern empire.

ANSWER: **Byzantine** empire

[10] This El Greco painting shows St. Augustine and St. Stephen, dressed in red and yellow robes, holding the title figure.

ANSWER: *The **Burial of the Count of Orgaz***

4. Identify the following about an author and his works, for 10 points each:

[10] The Hoennikers are at the center of this novel, which is best known for its portrayal of Ice-9 as a substance that can rapidly freeze large bodies of water.

ANSWER: **Cat's Cradle**

[10] *Cat's Cradle* is a work by this author, whose recurring characters include Kilgore Trout and Eliot Rosewater.

ANSWER: Kurt **Vonnegut**, Jr.

[10] Vonnegut's first novel was this one featuring Paul Proteus, about a society where engineers oppose the people who their machines have replaced, and taking place in the dystopia of Ilium.

ANSWER: **Player Piano**

5. Among the more unusual members of this phylum are the lancelets. For 10 points each:

[10] Name this animal phylum characterized by pharyngeal pouches, a muscular post-anal tail, a hollow nerve cord, and its namesake feature that often develops into the backbone.

ANSWER: **chordata** (kor-DAH-tah) [or **chordates**]

[10] Chordata is found under this superphylum, embryologically characterized by a blastopore that develops into an anus.

ANSWER: **deuterostomia** [or **deuterostomes**]

[10] Another unusual group of chordates is this subphylum that includes sea squirts. Its members feed by siphoning seawater through their bodies, filtering out plankton.

ANSWER: **tunicates** [or **tunicata**; or **urochordates**; or **urochordata**]

6. Hercules had some awful luck with women. For 10 points each:

[10] This wife of Zeus did everything she could to make Hercules' life difficult, including sending a gadfly to break up Geryon's cattle, and stirring up the Amazons against him.

ANSWER: **Hera**

[10] This woman, Hercules' second wife, was tricked by the centaur Nessos into putting a love potion onto Hercules' cape that turned out to be a poison.

ANSWER: **Deianeira**

[10] Hercules was enslaved to this Lydian queen after an oracle stated that he should be enslaved for three years in order to purify himself after slaying his friend Iphitus and stealing the Delphic tripod.

ANSWER: **Omphale**

7. Name the following compositions by French composers for 10 points each:

[10] The title character of this Georges Bizet opera works in a cigarette factory, is loved by both the bullfighter Escamillo and Don Jose, and sings a famous Habanera.

ANSWER: **Carmen**

[10] The end of this Maurice Ravel work features an eight-bar transition from C major to E major to lead in the cymbals and bass drum, joining the original snare drum ostinato.

ANSWER: **Boléro**

[10] This Hector Berlioz opera, including "The March of the Pilgrims". was written at the behest of Niccolò Paganini and was inspired by the writings of Lord Byron.

ANSWER: **Harold in Italy** [or **Opus 16**]

8. This quantity equals the deforming force on an object per unit area. For 10 points each:

[10] Name this physical quantity similar to pressure, applied to solids.

ANSWER: **stress** [accept more specific answers]

[10] This type of stress describes the force applied tangentially to one face of an object a parallel face is held constant.

ANSWER: **shear** stress

[10] Because stress can vary with direction, it is generally described by this type of mathematical quantity, constructed by taking the force vector on planes in each direction, combining them to be represented in a matrix.

ANSWER: **tensor** quantity

9. A diphthong is the transition between two pure ones of these. For 10 points each:

[10] Name these phonemes that, in English, are A, E, I, O, U, and sometimes Y.

ANSWER: vowels

[10] This major shift in the pronunciation of certain vowels caused words like “goat” and “hot” to no longer rhyme in Chaucer’s writing.

ANSWER: Great Vowel Shift

[10] Otto Jespersen, who first studied the Great Vowel Shift, also founded the Association that invented this system for representing phonemes by unique symbols, such as a theta for the TH sound.

ANSWER: International Phonetic Alphabet

10. Answer these questions about the creation of modern Israel.

[10] This 1917 announcement by the UK stated that it would support the establishment of a home for the Jewish people in Palestine, galvanizing the Zionist movement.

ANSWER: Balfour Declaration

[10] This first prime minister of Israel had unified several forces into one body, Tzahal, during the Israeli War of Independence.

ANSWER: David Ben-Gurion [or David Grün]

[10] This 1950 Israeli law allowed for the unimpeded entry and citizenship of all Jews wishing to immigrate, the fulfillment of a key Zionist ideal.

ANSWER: Law of Return

11. This poet wrote works about historical figures such as Robespierre, Joan of Arc, and Wat Tyler. For 10 points each:

[10] Name this poet who wrote about a warning bell stolen by a pirate in *The Inchcape Rock*.

ANSWER: Robert Southey

[10] This friend of Southey, a fellow Lake Poet, was inspired by a chance meeting with a large field of daffodils to write “I Wandered Lonely as a Cloud”.

ANSWER: William Wordsworth

[10] Wordsworth collaborated on *Lyrical Ballads* with this writer of “The Rime of the Ancient Mariner” and “Kubla Khan”.

ANSWER: Samuel Taylor Coleridge

12. Major Robert Anderson was the highest ranking Union officer at this battle. For 10 points each:

[10] Name this 1861 battle in which Confederate forces bombarded the namesake fort in Charleston, South Carolina, thus starting the American Civil War.

ANSWER: Battle of Fort Sumter

[10] The Confederate forces at the Battle of Fort Sumter were commanded by this general who, with help from Joseph Johnston, led the victory at the First Battle of Bull Run, or, as they called it, First Manassas.

ANSWER: Pierre Gustave Toutant Beauregard

[10] P.G.T. Beauregard lost this battle in which he and Albert Sidney Johnston tried to drive Ulysses S. Grant away from the Tennessee River but were thwarted by Don Carlos Buell’s reinforcements.

ANSWER: Battle of Shiloh [or Battle of Pittsburgh Landing]

13. This building contains Michelangelo's Pietà and the tomb of Pope Urban VIII. For 10 points each:

[10] Name this church that, according to the Catholic church, was constructed over the tomb of its namesake saint, who was the first bishop of Rome.

ANSWER: St. Peter's Basilica

[10] The original St. Peter's Basilica was ordered to be built by this Christian Emperor some time around 326 C.E.

ANSWER: Constantine

[10] Thirteen years earlier, Constantine issued this Edict, in conjunction with Licinius, which decreed that Christianity would be tolerated throughout the Roman Empire, thus ending the Diocletian persecutions.

ANSWER: Edict of Milan

14. For 10 points each, identify these professional soccer players:

[10] This midfielder made his debut with Manchester United in 1992 at the age of 17. Subsequent teams include Real Madrid, AC Milan, and the LA Galaxy.

ANSWER: David Robert Joseph Beckham

[10] One of Beckham's fellow midfielders at Real Madrid was this retired Frenchman, notable for his appearance in a recent Adidas shoe commercial which he opened with the line, "All I have is a story...."

ANSWER: Zinedine Yazid Zidane

[10] Zidane famously headbutted this center back in the 2006 World Cup. This man currently plays for AC Milan's primary rival.

ANSWER: Marco Materazzi

15. One example of this hypothetical class of particles is the photino. For 10 points each:

[10] Name this class of particles, which do not interact with the strong or electromagnetic forces and are therefore difficult to detect.

ANSWER: WIMPs [or Weakly Interacting Massive Particles]

[10] WIMPs and MACHOs are both candidates to be this type of substance, first postulated by Fritz Zwicky, which is believed to make up the majority of the universe's mass but is not directly observable.

ANSWER: dark matter

[10] WIMPs are more massive—and therefore slower—than these particles, which can be observed causing Cerenkov radiation in water at the Super-Kamiokande Observatory.

ANSWER: neutrinos

16. He introduced a third actor to the stage, was the first to abandon the trilogy, and used the most lofty language of the three great tragedians. For 10 points each:

[10] Name this playwright who, like Euripides, wrote an *Electra*, and who also wrote three Theban plays, the last of which was *Antigone* (an-TIH-goh-nee).

ANSWER: Sophocles

[10] In this first of the Theban plays, the title character yells at Tiresias, denying that he murdered his father Laius and married his mom Jocasta, but it all turns out to be true.

ANSWER: Oedipus the King [or Oedipus Tyrannus; or Oedipus Rex; prompt on Oedipus]

[10] This other Sophocles work sees the title character, who has been abandoned on Lemnos, go into unbearable fits of pain from a snakebite on his foot, until it is healed by his fighting the Trojans.

ANSWER: Philoctetes

17. It serves as a simple model for population growth, when determined primarily by the availability of resources. For 10 points each:

[10] Name this S-shaped curve used in population dynamics, defined by a growth rate and carrying capacity.

ANSWER: logistic curve

[10] In situations where predator-prey relationships are dominant, populations instead act like periodic functions, as modeled by this set of doubly-eponymous differential equations.

ANSWER: Lotka-Volterra equations

[10] This economist's *The Principle of Population* was highly influential in population dynamics, and influenced Darwin, among other biologists.

ANSWER: Thomas Malthus

18. Last September, this country revealed that it had built a nuclear plant near Qom (KOHM). For 10 points each:

[10] Name this nation which also recently announced that five people had been sentenced to death for protesting its June elections, which kept President Mahmoud Ahmadinejad (mah-MOOD ah-mah-dihn-uh-ZHAHD) in power.

ANSWER: Iran

[10] Riots in Iran on December 7 commemorated three students who were killed in Iran in 1953 protesting the replacement of this man with Shah Mohammed Reza Pahlavi.

ANSWER: Mohammed Mossadegh

[10] This international organization has monitored Iranian nuclear power and tried to negotiate a resolution to the recent nuclear crisis. Its head Mohamed ElBaradei recently stepped down and was replaced by Yukiya Amano. An abbreviation is acceptable.

ANSWER: International Atomical Energy Agency

19. Identify the following about an energy-versus-reaction time graph for a chemical reaction, for 10 points each:

[10] The activation energy can be lowered by adding these substances.

ANSWER: catalysts [prompt on enzymes]

[10] If the energy of the products is lower than the energy of the reactants, the change in this quantity will be negative, and the reaction will proceed spontaneously.

ANSWER: change in Gibbs free energy [accept Gibbs function; accept delta G; prompt on free energy; do not accept "enthalpy"]

[10] If the reaction occurs under constant pressure and temperature, and Gibbs free energy is negative, the reaction can be classified as this, since the energy released will be doing work on the system.

ANSWER: exergonic [accept exothermic]

20. This man was the second-to-last of the Rurik dynasty. For 10 points each:

[10] Name this ruler who claimed the crown of Russia for himself at age fourteen, ending a regency which had existed since 1533, and accidentally killed his son on November 16th, 1581.

ANSWER: Ivan the Terrible [or Ivan IV Vasilyevich; or Ivan Vasilyevich; or Ivan Grozny]

[10] Ivan the Terrible carried out a campaign of westward expansion during this war from 1558 to 1583 fought mostly in the Baltics.

ANSWER: Livonian War [or First Northern War]

[10] Ivan's advisors suggested he ignore the Livonian War and concentrate on clearing Tatar hordes from this southern peninsula, where a later generation of Russians would fight French and British invaders.

ANSWER: Crimean Peninsula