

2015 Virginia Tech Academic Competition Occasion (VTACO)

Written by: Matt Fleischer, Kara Garvey, Michael Chuber, Brian Mongilio, Eric Chang, Jordan Kuhn, Jesse Johnson, Michael Hundley, Jared Barrow, Alex Apollonio, Hank Alexander, Harry White, Devin Beckstoffer, Matt Jordan, and Joseph Brooks

Edited by: Matt Fleischer and Michael Hundley

WARNING: THIS IS AN UNRANDOMIZED SAMPLE PACKET INTENDED FOR POTENTIAL MIRROR HOSTS. THIS PACKET IS NOT NECESSARILY INDICATIVE OF WHAT MAY OR MAY NOT COME UP IN THE TOURNAMENT ITSELF.

Sample Half-Packet: Tossups

1. One poem by this author compares his lover Juliana to cutting grass, while another of this author's poems begins "The forward youth that would appear / Must now forsake his Muses dear." This author of "The Mower's Song" likened the title event to "three-forked lightning" in "An Horatian Ode upon Cromwell's Return from Ireland." Another of this man's poems envisions a "vegetable love" being shunned "Till the conversion of the Jews." The speaker of that same poem by this author always hears "Time's wingèd chariot hurrying near" and begins "Had we but world enough and time." For 10 points, name this metaphysical poet of "To His Coy Mistress." ANSWER: Andrew Marvell

2. The eleventh section of this poem depicts a woman joining a group of "twenty-eight young men bath[ing] by the shore." This poem's speaker claims to be "not a bit tamed," and this poem's sixth section sees the speaker answer "it is the handkerchief of the Lord" and "the beautiful uncut hair of graves" when a child asks him "What is the grass?" This poem's speaker envisions sounding a "barbaric yawp over the roofs of the world" after asserting "I am large, I contain multitudes." For 10 points, name this fifty-two part poem found in *Leaves of Grass*, a work of Walt Whitman.

ANSWER: "Song of Myself"

3. This city was ruled for a time by the Albizzi family, and this city passed the Ordinances of Justice from 1293 to 1295. This city was governed by nine *priori*, six of which were chosen from its major guilds, or *arti maggiori*. Michele di Lando became gonfaloniere of justice in this city during the 1378 Ciompi Revolt, and Pope Sixtus IV backed the Pazzi conspiracy in this city. This city experienced a decline under Piero the Gouty, and it witnessed the Bonfire of the Vanities during the regime of Girolamo Savonarola. For 10 points, name this city on the Arno river that was once dominated by Cosimo and Lorenzo de' Medici.

ANSWER: Florence [or Firenze; or Fiorenza; or Florentia]

4. One general during this battle failed to take the Balcarres redoubt before taking the Breymann redoubt alongside the forces of Ebenezer Learned. This battle saw rifleman Timothy Murphy kill the opposing general Simon Fraser. The losing commander of this battle had earlier retaken Fort Ticonderoga, but he was stymied upon the arrival of Benedict Arnold. This battle encompassed the battles of Freeman's Farm and Bemis Heights. For 10 points, name this 1777 battle in New York that saw the Americans under Horatio Gates defeat the British forces of John Burgoyne.

ANSWER: Battle of Saratoga [prompt on "Bemis Heights" or "Freeman's Farm"]

5. The ceramic type of these devices are commonly used in resonators, while their “reservoir” type are used to smooth DC current produced by an AC rectifier. One of these devices was at the center of the Trouton-Noble experiment. These devices are used to store data in dynamic RAM, and the central quantity of these devices adds in parallel. A dielectric can increase the efficiency of the parallel-plate variety of these devices, and Leyden Jars were early examples of them. For 10 points, name these devices used to store charge whose characteristic quantity is measured in farads.

ANSWER: Capacitors [prompt on “condenser”]

6. This pathway’s second step sees a dehydration mediated by aconitase, and its rate-limiting step is the irreversible decarboxylation of oxalosuccinate into alpha-ketoglutarate. Before this pathway can occur, acetyl-coA is created from the decarboxylation of pyruvate. Two turns of this cycle see the formation of two ubiquinone from FADH₂, and it also produces six NADH, two GTP, and two ATP. This pathway occurs in-between glycolysis and oxidative phosphorylation. For 10 points, name this second step in cellular respiration that takes place in the mitochondrial matrix and is also called the Citric Acid Cycle.

ANSWER: Krebs cycle [or TCA cycle; or Tricarboxylic acid cycle; accept Citric acid cycle before mentioned]

7. This man included a gavotte as the third movement of a work whose fourth movement is titled “Air.” Another work by this composer includes songs such as *March of the Trolls* and *Wedding Day at Troldhaugen*. In addition to composing the *Holberg Suite* and sixty-six *Lyric Pieces*, this man included movements like “Anitra’s Dance” and “Morning Mood” in another of his works. That same work by this composer includes songs like “Solveig’s Song” and “In the Hall of the Mountain King” and is based on a Henrik Ibsen play. For 10 points, name this Norwegian composer of the *Peer Gynt* suites.

ANSWER: Edvard Hagerup Grieg

8. This god kicked the dwarf Lit into Baldr’s funeral pyre, and this god used the head of an ox as bait while fishing with Hymir. This god received a magic belt and iron gloves from the giantess Grid, which allowed him to kill Geirrod. This lover of Járnsaxa and wielder of Megingjörd and Járngreipr is served by Thjálfi and Roskva, and this god once tricked the dwarf Alvis. This father of Magni rides in a chariot pulled by two goats, and this husband of Sif will kill and be killed by Jormungandr at Ragnarok. For 10 points, name this wielder of Mjöltnir, the Norse god of thunder.

ANSWER: Thor [or Thunor; or Thunraz; or Donar]

9. The lowest point in this nation is Laguna del Carbon. The Iguazu falls lie on this nation’s border with its northern neighbor, and the highest point in this nation is contained in its Mendoza province. That peak in this nation is Quechua for “Sentinel of Stone,” and it was first ascended using the Horcones Valley route by Matthias Zurbriggen. This nation contains the scrub plateau of Patagonia, and the Uruguay River merges with the Parana River in this nation to form the Rio de la Plata. This country is the home of the tallest mountain in the Americas, Mount Aconcagua. For 10 points, name this country home to the Pampas region with capital at Buenos Aires.

ANSWER: República Argentina [or Argentine Republic]

10. This man discussed legal, traditional, and charismatic governance in his work *The Three Types of Legitimate Rule*. This man called the state a “monopoly on the legitimate use of violence” in his essay “Politics as a Vocation.” This man coined the terms “ideal type” and “verstehen”, and this anti-positivist sociologist posited that the belief in predestination has trapped Calvinists in an “iron cage” of teleological efficiency. For 10 points, identify this German sociologist who wrote *The Protestant Ethic and the Spirit of Capitalism*.

ANSWER: Karl Emil Maximilian Weber

Sample Half-Packet: Bonuses

1. This novel is interspersed with commentary by Charles Kinbote, who is really the King of Zembla in disguise. For 10 points each:

[10] Name this novel that centers on the publication of a 999-line poem by John Shade, who was mistakenly killed by Gradus.

ANSWER: **Pale Fire**

[10] This other novel by the author of *Pale Fire* sees Humbert Humbert kill Clare Quilty and pursue the nymphet Dolores Haze.

ANSWER: **Lolita**

[10] In addition to writing about V. publishing a biography of his half-brother in *The Real Life of Sebastian Knight*, this Russian author wrote *Pale Fire* and *Lolita*

ANSWER: Vladimir **Nabokov**

2. Its venture into Western theatre was known as *shingeki*, and its puppet theatre is known as *bunraku*. For 10 points each:

[10] Name this country that was also home to the classical *kabuki* theatre.

ANSWER: State of **Japan** [or **Nippon**-koku; or **Nihon**-koku]

[10] This other form of Japanese drama, which was often paired with comical *kyôgen*, was known for its prominent use of masks to express emotions.

ANSWER: **Noh** theatre [or **Nogaku**; accept equivalents]

[10] This prominent *bunraku* and *kabuki* dramatist behind *The Battles of Coxinga* is known for plays depicting double-suicides of lovers.

ANSWER: **Chikamatsu** Monzaemon [or **Sugimori** Nobumori]

3. The Sinyavino Offensive and Operation Iskra both attempted to put an end to this event, and relief of this event did not begin until the establishment of the Road of Life. For 10 points each:

[10] Name this devastating siege of a Soviet city by German and Finnish Forces from 1941 to 1944. It resulted in the deaths of around 1.5 million soldiers and civilians from starvation alone.

ANSWER: Siege of **Leningrad** [accept equivalents]

[10] This other battle, fought on the banks of the Volga, saw Soviet troops under Georgy Zhukov enact Operation Uranus, which surrounded and forced the surrender of the German Sixth Army under Friedrich Paulus.

ANSWER: Battle of **Stalingrad**

[10] This 1943 battle, which included the Battle of Prokhorovka, occurred in response to the Germans launching Operation Citadel. It was the largest tank battle in history and resulted in a decisive Soviet victory.

ANSWER: Battle of **Kursk**

4. This position was created following the death of Mohammed. For 10 points each:

[10] Name these spiritual leaders of Islam. The first four holders of this position were known as Rashidun, or “Rightly Guided,” and included Abu Bakr.

ANSWER: **Caliphs**

[10] This was the first Sunni caliphate, which was established by Mu’awiya after his son Yazid I defeated Imam Hussein at the 680 Battle of Karbala.

ANSWER: **Umayyad** dynasty/caliphate

[10] The fall of the Umayyad dynasty came at this 750 battle during which the forces of Marwan II were defeated by the Abbasids near the namesake river in Iraq.

ANSWER: Battle of the **Zab**

5. This molecule is produced industrially via the Haber-Bosch process. For 10 points each:

[10] Name this compound with chemical formula NH_3 that is commonly used in fertilizers.

ANSWER: **Ammonia** [or **Azane**; do not accept “ammounium”]

[10] This two-step industrial process sees ammonia twice reacted with oxygen to form nitrogen dioxide and then absorbed by water to create nitric acid.

ANSWER: **Ostwald** Process

[10] Although known primarily for being a base, ammonia can also act as an acid in a reaction with lithium to form lithium amide. This is the term given to such species that can act as both a base and an acid.

ANSWER: **Amphoteric** [accept word forms]

6. Answer the following about Kepler’s laws, for 10 points each.

[10] Kepler’s first law states that planets orbit the sun with this shape. These shapes have eccentricities greater than or equal to zero but less than one.

ANSWER: **Ellipse** [accept word forms]

[10] Kepler’s second law states that a line connecting the sun and a planet sweeps out equal areas in equal time, meaning that the areal form of this quantity is constant. The time derivative of this vector quantity is acceleration.

ANSWER: **Velocity** [do not accept “speed”]

[10] Kepler’s third law states that the square of a planet’s orbital period is directly proportional to the cube of this quantity for its orbit.

ANSWER: **Semi-Major Axis** [or **One Half of the Major Axis**]

7. Debate persists over whether Don Jose Nieto is entering or exiting the doorway in the background of this painting. For 10 points each:

[10] Name this painting that shows Philip IV and Marianna of Austria in a mirror and depicts the servants of the Infanta Margarita.

ANSWER: **Las Meninas** [or *The Maids of Honor*; or *The Ladies-in-Waiting*]

[10] In addition to depicting Justin of Nassau handing a key to Ambrogio Spinola in *The Surrender of Breda*, this Spanish artist painted *Las Meninas*.

ANSWER: Diego **Velazquez**

[10] Velazquez’s *Portrait of Pope Innocent X* served as a basis for studies by this later artist, who depicted him screaming. He is perhaps best-known for the triptych *Three Studies for Figures at the Base of a Crucifixion*.

ANSWER: Francis **Bacon**

8. It contains the rotating SkyCity restaurant. For 10 points each:

[10] Name this 605-foot tall building in Seattle born out of a compromise between John Graham, Jr. and Edward Carlson. It was constructed for the 1962 World's Fair.

ANSWER: Space Needle

[10] Seattle also contains the building formerly known as the Experience Music Project, which was designed by this architect. This architect also designed the Walt Disney Concert Hall and the Guggenheim Museum Bilbao.

ANSWER: Frank Gehry

[10] The Seattle Central example of one of these buildings was designed by Rem Koolhaas. A Laurentian one was designed by Michelangelo under the patronage of Clement VII.

ANSWER: Library [accept word forms]

9. It involves repentance, or *Teshuva*, and confessional, or *Vidui*. For 10 points each:

[10] Name this Jewish holiday occurring on the 10th of Tishrei, also known as the Day of Atonement.

ANSWER: Yom Kippur

[10] Yom Kippur marks the end of this ten-day period that begins on Rosh Hashanah. This period includes the Fast of Gedaliah and Shabbat Shuvah.

ANSWER: Ten Days of Awe [or Yamim Noraim; or Aseret Yemei Teshuvah; prompt on "(Ten Days of) Repentance" or "High Holidays" or "High Holy Days"]

[10] This chant, oftentimes thought of as a prayer, is recited during the service on Yom Kippur eve. Its name translates as "all vows."

ANSWER: Kol Nidre [or Kol Nidrey; or Kol Nidrei]

10. Citizens of this country have recently rallied around the slogan "Je suis Charlie." For 10 points each:

[10] Name this country that witnessed the massacre of members of its satirical newspaper *Charlie Hebdo* by Islamic militants Chérif and Saïd Kouachi in January of 2015.

ANSWER: France [or French Republic; or République française]

[10] This French president declared that the *Charlie Hebdo* shootings were "undoubtedly a terrorist attack." This politician came to power after he defeated Nicolas Sarkozy in France's 2012 election.

ANSWER: François Hollande

[10] While not responsible, this Somali terrorist group praised the *Charlie Hebdo* massacre. It was the target of Operation Indian Ocean, and a U.S. drone strike killed its leader Moktar Ali Zueyr in September 2014.

ANSWER: Harakat al-Shabaab al-Mujahideen [or HSM; or Harakat ash-Shabāb al-Mujāhidīn; or Xarakada Mujaahidiinta Alshabaab; or Mujahideen Youth Movement; or Movement of Striving Youth; prompt on "The Youth" or "The Youngsters"]