

Western Invitational Tournament 2013
Rice University (Henry Gorman, Lauren Zook, Will Otter, Victor Prieto)

Tossups

1. **This man made reconnaissance trips to follow up on a project he supported after the Locarno Treaties were signed. This supporter of Joseph Joffre's plan for the Maginot Line organized truck transport across the Voie Sacrée to provide a stream of artillery and ammunition for his army in one battle. He replaced (*) Paul Reynaud as Prime Minister and shortly thereafter became "Head of State" thanks to the failure of the Dyle Plan. Using the motto "Travail, famille, patrie," he nominally led his country from his seat of government in a spa town, having given up while Charles de Gaulle and the Free French fought on. For 10 points, name this military hero of the Battle of Verdun who led Vichy France.**

ANSWER: Philippe Pétain [or Henri Philippe Benoni Omer Joseph Pétain; or Marshal Pétain]

2. **The folklorist Richard Dorson demonstrated that this figure was invented from the whole cloth by Edward O'Reilly. During his courtship of one consort, he shot all but one of the stars from the sky for her, and, at her insistence, allowed her to ride his horse, which bucked her to the moon. This figure, who was said to have laughed himself to death, once created a (*) hurricane while wrestling and defeated the Bear Lake Monster. This husband of Blue-Foot Sue rode the horse Widowmaker, ate dynamite, was raised by coyotes, and used his lariat, a rattlesnake, to lasso a tornado which he used to carve out the Grand Canyon. For 10 points, identify this hero of American folklore, a legendary cowboy.**

ANSWER: Pecos Bill [prompt on Bill]

3. **John Ruskin, the first owner of this painting, wrote that it was the painting he would choose "if reduced to rest its artist's immortality upon any single work." White seagulls fly low above the water at this painting's left, while two monstrous fish pop their heads out of the water on the right. Sticking out of the water are (*) chained human hands, including a dark one at lower right surrounded by small white fish. A shadowy object floats on rocky waves in front of a blood red sunset in this painting, which depicts the captain of the *Zong*'s decision to throw 142 men overboard in order to claim insurance payments. For 10 points, name this J.M.W. Turner painting depicting a vessel undertaking the Middle Passage.**

ANSWER *The Slave Ship* [or *Slavers Throwing Overboard the Dead and Dying, Typhoon Coming On*]

4. **The decomposition of spherical tensor operators acting on the eigenbasis of this operator is the usual application of the Wigner-Eckart theorem. Like spin, the commutator of two distinct components of this operator is given by plus or minus $i\hbar$ times the third component. When transforming between coupled and uncoupled bases for this operator, the (*) Clebsch-Gordan coefficients arise. A component of this quantity is given by the derivative of the Lagrangian with respect to angle of rotation about the corresponding axis. Thus this quantity is conserved in rotationally-invariant systems with no external torque. For 10 points, name this quantity given by displacement cross momentum.**

ANSWER: angular momentum [or orbital angular momentum; prompt on momentum, but do not accept "linear momentum"]

5. **During the Civil War, a prison for captured Confederates was built on an island within this river. Tributaries of this river include Beaver Kill and Big Bushkill Creek. It begins at the confluence of the East and West portions of this river at Hancock. One tributary of this river has a secondary tributary of Pennsauken and lies along the town of Reading. The (*) Schuylkill is a tributary of this river, whose namesake bay is bound by Cape Henlopen and Cape May. A minor tributary of this river is the Brandywine. Philadelphia lies on, for 10 points, what river that separates New Jersey from Pennsylvania and its namesake state?**

ANSWER: Delaware River

6. **This composer wrote a *Capriccio* featuring piano for the left hand for pianist Otakar Hollmann, who had lost his right in World War I. His choral works include a piece based on a Rabindarath Tagore poem, *The Wandering Madman*. One of this composer's orchestral works was dedicated to the armed forces of his nation and was written for the organizers of the (*) Sokol festival. This composer conducted intense study and cataloging of Slavic folk music with František Bartoš, which may have helped him compose his *Glagolitic Mass*.**

For 10 points, name this Czech composer who wrote the nationalistic *Sinfonietta* but might be best known for his terrifying opera in which a newborn baby is drowned in an icy river, titled *Jenůfa*.
ANSWER: Leoš Janáček

7. Both John Cairns and Cyrus Levinthal called this experiment “the most beautiful” in their field. This experiment built on possibilities suggested by Gunther Stent and Max Delbruck in a 1956 paper. The last step of this experiment involved placing the samples in solutions of cesium chloride and centrifuging them. In this experiment, the F2 generation consisted of two bands: one a mixture of (*) 14 and 15 nitrogen, the other pure 14 nitrogen. This experiment eliminated the dispersive and conservative hypotheses, instead supporting the semiconservative model. For 10 points, name this experiment which proved that each new DNA molecule in replication consisted of one strand from the original helix and one new strand, named for two Caltech researchers.
ANSWER: Meselson-Stahl experiment [or any answer with those names in any order; prompt on partial answer]

8. The character who currently uses this identity owns a dog named Titus and has a given name derived from the Greek for “to tame.” The first female version of this character was named Carrie Kelly, whereas the first canonical female to use this identity had previously called herself Spoiler. The second character to use this identity, (*) Jason Todd, was killed in accordance with the results of a telephone poll but was later resurrected and is now the Red Hood. The first character to assume this name now goes by Nightwing, and his mentor started training him after his acrobat parents were murdered. For 10 points, what name has been used by Tim Drake, Damian Wayne and Dick Grayson, referring to Batman’s sidekick and youthful ward?
ANSWER: Robin

9. Near the end of his life, this artist created a monument for his birthplace, Dublin, honoring Charles Stuart Parnell. He mentored other American artists at the Cornish Art Colony in New Hampshire and designed a \$20 Double Eagle gold piece for the US Mint. His Civil War memorials include an equestrian statue of a (*) Union general in Central Park as well as a sculpture of a president standing thoughtfully in front of a chair with an eagle motif. This sculptor of the Sherman Memorial and Standing Lincoln depicted the leader of the all-black 54th Massachusetts Infantry Regiment in a monument on Boston Common. For 10 points, name this American Renaissance sculptor of the Robert Gould Shaw Memorial.
ANSWER: Augustus Saint-Gaudens

10. One of these objects was first investigated by Bessel, who noted that although it had a similar mass to our sun, it was noticeably dimmer. These objects frequently show only hydrogen in spectroscopies, due to heavier elements “sinking” farther into the object. One example of these objects, (*) Sirius B, was calculated to have a density of approximately one hundred and twenty five kilograms per cubic centimeter. Located on the bottom left corner of a Hertzsprung-Russell diagram, they cause type Ia supernovae when they exceed 1.44 solar masses, known as the Chandrasekhar limit. For 10 points, name this stellar object formed at the end of a typical massive main-sequence star’s life, a small, hot star.
ANSWER: white dwarf [prompt on dwarf]

11. The narrator of this work is refused admittance to a library where she wants to view a manuscript of Milton’s “Lycidas” and identifies herself as “Mary Beton, Mary Seton, [or] Mary Carmichael.” The narrator pities the “anger and bitterness” of Lady Winchilsea and criticizes Charlotte Brontë for an awkward authorial intervention in *Jane Eyre*. The final chapter of this essay addresses Coleridge’s idea that “a great mind is (*) androgynous.” This essay discusses the novelty of the sentence “Chloe liked Olivia” and says that Jane Austen was exceptional for her ability to write fiction without possessing the title location. For 10 points, name this work which hypothesizes that women only need the title location to be writers, a feminist essay by Virginia Woolf.
ANSWER: “A Room of One’s Own”

12. In this book, a Levite’s concubine is raped to death and her corpse cut into twelve pieces. A woman named Jael in this work drives a tent peg through the head of an enemy commander named Sisera, denying another Israelite the honor of killing him. One character in this work kills his virgin daughter and gets embroiled in a conflict between the (*) Gileadites and the Ephraimites; that character’s name is Jephthah. A more famous character in this book eats honey from the carcass of a lion, and has his eyes gouged out by the Philistines after being tricked into getting his hair cut by his lover Delilah. For 10 points, name this seventh book of the Bible

about a series of Jewish leaders including Gideon, Deborah, and Samson.

ANSWER: The Book of Judges

13. Two Jesuit priests described an incident in which this man urged them to challenge religious scholars at his court to an ordeal by fire. After this man's army won one victory, he declined to execute his foe, pointing to a picture he had drawn of that foe's bleeding corpse and declaring that he had already killed him. He defeated that man, Hemu the Grocer, with the help of a general he would later have exiled to Mecca, his foster-father Bayram Khan. Despite succeeding to the throne at (*) age 12, he was able to secure his position by winning the Second Battle of Panipat., building a new capital at Fatehpur Sikri, and founding a new syncretic Sufi Order, the Din-i-Ilahi. For 10 points, name this grandson of Babur who vastly expanded the Mughal Empire.

ANSWER: Jalal-ud-din Muhammad Akbar

14. The protagonist of this novel unsuccessfully begs a man not to whip two officials who were being punished as a result of his actions, and comes back to find them still being whipped the next day. The protagonist of this novel attracts a washerwoman who offers to help him. This novel's central character studies Italian to prepare for a tourist he meets in a cathedral, where he is told a (*) parable of a man "Before the Law." At the end of this novel, he encounters two men in his apartment, who take him away to a quarry and kill him with a butcher knife, and he dies "like a dog." For 10 points, name this novel by Franz Kafka in which Joseph K. is inextricably involved in an incomprehensible legal proceeding.

ANSWER: *The Trial* [or *Der Prozess*]

15. In this battle, the misinterpretation of the meaning of a flare led to the destruction of the 1st Newfoundland Regiment. In the prelude to this battle, the "bite-and-hold" strategy of Henry Rawlinson made its debut. First called for at the Chantilly Conference, this battle, which opened with the Battle of (*) Albert, also included the disastrous Battle of Bazentin Ridge. A massive mine was detonated beneath the Hawthorne Ridge at the beginning of this battle as part of a massive but insufficient preliminary bombardment. The tank made its first appearance at this battle. For 10 points, name this World War I battle designed to take pressure off of Verdun, which resulted in 60,000 British casualties on the first day.

ANSWER: Battle of the Somme

16. A mutation in one component of this structure results in Shwachman-Bodian-Diamond Syndrome, a major cause of exocrine pancreatic insufficiency in children. An important molecule that interacts with this structure is mimicked by this structure's namesake "recycling factor." This structure recognizes either the Kozak or (*) Shine-Dalgarno sequences. Different parts of this structure are named for their rates of sedimentation, measured in Svedberg units. This organelle contains the A, P, and E binding sites and is synthesized in the nucleolus. Found in the rough endoplasmic reticulum and cytoplasm, this organelle starts at methionine and stops at a stop codon. For 10 points, name this organelle which interacts with tRNA during translation.

ANSWER: ribosome

17. One of the main characters in this novel gets a writing job from Uncle Leo XII and tries to reunite with Ausencia after a robbery at her home ends their long affair. Another main character examines the dead body of his fiercest chess competitor, who has committed suicide. Yet another character in this novel climbs a ladder to try to remove his pet parrot from a tree but falls to his own death, giving an unmarried former lover of his wife a chance to rekindle their romance after (*) fifty-one years apart; the two finally consummate their relationship on a riverboat that can never come ashore because of its yellow flag. For 10 points, name this novel about Florentino Ariza's pursuit of Fermina Daza, a work of Gabriel Garcia Marquez.

ANSWER: *Love in the Time of Cholera* [or *El amor en los tiempos del cólera*]

18. Following the crash of one of these airplanes belonging to the Missouri Air National Guard in 2007, the entire US fleet was grounded. It showed signs of age when Indian pilots were able to achieve success against them during the "Cope India" exercises. In live combat, this aircraft has achieved a 105-to-0 kill ratio. During the Tanker War, two Iranian F-4s were shot down by Saudi pilots flying this aircraft. They provided cover for (*) F-16s during Operation Opera, a strike on the Osirak Nuclear Reactor in Iraq, and they were used to bomb the PLO's headquarters in Tunisia, both carried out by the Israeli Air Force. This aircraft accounted for 34 kills during the Persian Gulf War. For 10 points, name this former primary fighter of the US Air Force, named the Eagle.

ANSWER: McDonnell Douglas **F-15** Eagle [prompt on “Eagle” before mention, accept answers like **F-15A, C** and **E.**]

19. In this work, a man named Callias pays Evenus the Parian to teach his two sons. Three characters in this work represent the poets, the craftsmen, and the orators. The speaker of this work compares a soldier deserting his post during military service to him leaving the city because he might be (*) put to death, also admitting that though other men fear death, he knows that he does not know it. This work’s speaker says that he irritates the Athenian state as a gadfly stings a horse, and he singles out Meletus for *elenchus*. The title figure ironically performs the title action after being accused of atheism and corrupting the youth. For 10 points, name this Platonic dialogue, ostensibly Socrates’s defense speech in court.

ANSWER: Plato’s Apology of Socrates

20. This character keeps a seahorse pin in a heart-shaped box and tells a story about a parrot who swears in front of a preacher. This character’s husband shot himself as polka music played in the background sometime after she found him in bed with (*) another man. This character claims to have stayed at the Tarantula Arms in Laurel, Mississippi, where she was fired from her job as a schoolteacher for sleeping with a student. This character believes she will be saved by an imaginary millionaire named Shep Huntleigh and goes mad after being raped by her brother-in-law, whereupon she professes that she has “always depended on the kindness of strangers.” For 10 points, name this sister of Stella Kowalski, the protagonist of *A Streetcar Named Desire*.

ANSWER: Blanche DuBois [either name fine]

Tiebreakers

21. A maximum independent set for this data structure can be found in linear time by adding alternating levels. In this structure, any two vertices or nodes must be connected by a single simple path, and thus it is connected and acyclic. By using (*) union-find with disjoint sets, one type of this structure containing all the vertices of a connected graph can be constructed. One variety of this data structure can be used to easily implement a binary search. This structure also comes in red-black and self-balancing-binary varieties. For 10 points, identify this data structure from computer science, a hierarchical graph in which “leaf” nodes ultimately flow from a “root” node.

ANSWER: tree

22. This thinker decried the “phantom acceptance” brought about by “good-adjustment” in a work where he postulated that the wise and the normals comprise those unaffected by the title condition. This thinker railed against the usage of “constructive meditation” as a euphemism for solitary confinement and described how “secondary adjustments” are made in response to the harsh environment at (*) “total institutions” in a work written from his experiences as a pseudo-employee at St. Elizabeth’s Hospital. This author of *Stigma* used dramaturgical analysis in a work comparing people in social situations to actors on stage. For 10 points, name this symbolic interactionist, the author of *Asylums* and *The Presentation of Self in Everyday Life*.

ANSWER: Erving Goffman

Bonuses

1. Answer the following about cranial nerves, for 10 points each.

[10] The first and shortest of the twelve cranial nerves is named after this sense, whose neurons heavily interact with taste neurons in many eukaryotes, making up the sense of flavor.

ANSWER: olfaction [accept word forms, such as olfactory nerve; accept smell]

[10] Hiccups may be caused by overstimulation of this nerve, which extends from the medulla, through the throat, chest, and neck, and ends at the abdomen, where it assists with the involuntary activity of the digestive system.

ANSWER: vagus nerve [or pneumogastric nerve; or cranial nerve X; prompt on cranial nerve]

[10] Along with the vagus nerve, this nerve is responsible for the motor control of the tongue. Doctors can tell if it's impaired by observing that a patient's tongue points to one side or another.

ANSWER: hypoglossal nerve [or cranial nerve XII; prompt on cranial nerve]

2. By providing a stress tensor, the Navier-Stokes equations can be derived from an equation named for Cauchy expressing the conservation of this quantity. For 10 points each:

[10] Name this quantity whose conservation is given by Newton's third law and whose derivative gives the force by Newton's second law.

ANSWER: linear momentum [do not accept angular momentum]

[10] This equation, derivable from the Navier-Stokes equations, gives the pressure difference for fluid flow through a cylindrical pipe. It describes the pressure difference as varying inversely with the fourth power of the pipe radius.

ANSWER: Hagen-Poiseuille equation

[10] The Poiseuille equation assumes laminar flow, and thus does not apply for large values of this dimensionless quantity. This quantity measures the ratio of inertial to viscous forces.

ANSWER: Reynolds number

3. One chapter in this book consists entirely of punctuation marks and the names of the title character and his beloved Virgília. For 10 points each:

[10] Name this novel dedicated to "the worm who gnawed the cold flesh of" the corpse of its narrator, who concludes that his failure to conceive a child from any of his relationships was his contribution to mankind.

ANSWER: *The* Posthumous Memoirs of Brás Cubas [or Memórias Póstumas de Brás Cubas; or Epitaph for a Small Winner]

[10] *The Posthumous Memoirs of Brás Cubas* was written by this Brazilian, who also wrote the novels *Quincas Borba* and *Dom Casmurro*.

ANSWER: Joaquim Maria Machado de Assis

[10] Brás Cubas compares a hippopotamus that he comes across to the horse belonging to this character. *The Iliad* begins with the rage of this hero, who mourns his close companion Patroclus.

ANSWER: Achilles

4. For 10 points each, name the following Austrian cities that aren't Vienna.

[10] This capital of Upper Austria and boyhood residence of Adolf Hitler also lies along the Danube. Its landmarks include Johannes Kepler University and a concert hall named for hometown hero Anton Bruckner.

ANSWER: Linz

[10] This largest city in western Austria hosted the Winter Olympics in 1964 and 1976. It is the capital of Tyrol.

ANSWER: Innsbruck

[10] Interested tourists can take *Sound of Music* tours around landmarks in this Austrian city, where it was set. The name of this hometown of Mozart means "salt fortress".

ANSWER: Salzburg

5. For 10 points each, answer the following about failed pieces of legislation relating to slavery from the run-up to the U.S. Civil War:

[10] The pro-slavery Lecompton Constitution was written in a town in this "bloody" state, home to much pre-Civil War violence between pro-slavery and anti-slavery forces.

ANSWER: State of Kansas

[10] This abortive 1860 compromise proposed constitutional amendments extending the Missouri Compromise west, forbidding slavery to its north and guaranteeing it to the south. It also protected the integrity of fugitive slave laws.

ANSWER: Crittenden Compromise

[10] Even more last-ditch and conciliatory than the Crittenden Compromise was this proposed amendment by an Ohio Congressman, which cleared the Senate in March 1861. Too bad seven states had already seceded by then.

ANSWER: Corwin Amendment

6. For 10 points each, answer the following about creators of television series that debuted in 2012.

[10] NBC's *The Normal Heart*, which centers on a gay couple having a baby through a surrogate, was created by Ali Adler and this man behind *Glee*, *Nip/Tuck*, and *American Horror Story*. He also directed *Eat, Pray, Love*.

ANSWER: Ryan Murphy

[10] CBS's *Vegas* is the latest Mob-related project from Nicholas Pileggi, the writer of *Wiseguy: Life in a Mafia Family*, the basis for this Martin Scorsese film about the Lucchese family narrated by Henry Hill.

ANSWER: Goodfellas

[10] ABC's *Nashville* was created by Calli Khouri, who won an Original Screenplay Oscar for this 1991 Ridley Scott film in which the title characters go on the run after one of them kills a man in defense of the other.

ANSWER: Thelma and Louise

7. For 10 points each, answer some questions about the history of Mississippi.

[10] This Spanish conquistador got rich helping Pizarro conquer the Incas and then explored the Southeastern United States, where he became the first European to cross the Mississippi River.

ANSWER: Hernando de Soto

[10] Union General Ulysses S. Grant's army captured this Mississippi town on the 4th of July, 1863 after a two-month siege, marking a turning point in the Civil War.

ANSWER: Vicksburg

[10] During Reconstruction, this minister became the first African-American to be elected to Congress when he became a Mississippi Senator in 1870.

ANSWER: Hiram Rhodes Revels

8. Located in the Kunsthalle in Hamburg, this painting depicts several locations in the Elbe Sandstone Mountains in Saxony. For 10 points each:

[10] Name this Romantic painting by Caspar David Friedrich, in which a man dressed in black holding a cane looks at a landscape of mist covering rocky outcrops.

ANSWER: Wanderer Above the Sea of Fog [or Wanderer Above the Mist; or Der Wanderer über dem Nebelmeer]

[10] Caspar David Friedrich is a painter from this modern-day country, whose other landscape artists include Albrecht Altdorfer.

ANSWER: Federal Republic of Germany [or Bundesrepublik Deutschland]

[10] The man in *Wanderer Above the Sea of Fog* is an example of this type of figure, from whose perspective the viewer can see the scene. Another example is the monk in the *Monk by the Sea*, who faces away from the viewer.

ANSWER: Rückenfigur [or back figure]

9. Answer the following about consequentialism, for 10 points each.

[10] Noted consequentialist Peter Singer is best known for writing a 1975 book championing this cause, whose more extreme supporters accuse opponents of "speciesism" and are opposed to many forms of medical testing.

ANSWER: animal rights [or animal liberation; accept descriptive answers along the lines of treating animals fairly; don't accept "vegetarianism" or "veganism," which is somewhat unrelated]

[10] Philippa Foot contested consequentialist ethics with a thought experiment in which one of these vehicles will kill five people unless an innocent person is thrown in its way.

ANSWER: a trolley [or a train; or a tram; or a plane, actually, from her own formulation of the problem!]

[10] This philosopher modified the trolley problem, making the innocent person a fat man. She imagined a violinist whose only way to survive is by linking circulatory systems with another patient in her book *A Defense of Abortion*.

ANSWER: Judith Jarvis Thomson

10. In this play, one of the sons of Egeon and Emilia is believed to have died in a shipwreck, but that son survives and grows up in Ephesus. For 10 points each:

[10] Name this early Shakespearean comedy, a case of mistaken identity involving two sets of identical twins, based on a play by Plautus.

ANSWER: The *Comedy of Errors*

[10] In *The Comedy of Errors*, the twins Dromio of Syracuse and Dromio of Ephesus are servants to the twins who share this name.

ANSWER: Antipholus

[10] The *Comedy of Errors* and this other play are the only Shakespeare plays to observe all three classical unities. In it, the wizard Prospero lives on an island with his daughter Miranda and schemes to recover his dukedom.

ANSWER: The *Tempest*

11. Massive boulevards to replace narrow streets, a new sewer system, and the newly-constructed Opera Garnier were among the features he implemented in the 1860s. For 10 points each:

[10] Name this civic planner who was eventually fired because his project had been so costly and controversial.

ANSWER: Baron Georges-Eugène Haussmann

[10] Haussmann was commissioned by Napoleon III to renovate this city, which would, not a decade later, be the site of a brief and violent commune.

ANSWER: Paris

[10] Napoleon III was not quite the military genius his uncle was and his empire came to an end when his Army of Châlons was soundly defeated at this September 1870 battle concluding the Franco-Prussian War.

ANSWER: Battle of Sedan

12. Name these jazz pianists, for 10 points each.

[10] This big band leader began with the Washingtonians, but quickly put together his namesake orchestra. He rolled out such hits as “The Mooche,” “Mood Indigo,” and “It Don’t Mean a Thing (If it Ain’t Got that Swing).”

ANSWER: Edward Kennedy “Duke” Ellington

[10] This pianist of the second Miles Davis quintet recorded “Watermelon Man” while there, but then branched out into his solo career. His most famous pieces include “Cantaloupe Island” and “Chameleon.”

ANSWER: Herbie Hancock

[10] This earlier Jamaican pianist for Miles Davis worked with Bill Evans to produce “Kind of Blue,” featuring prominently on the track “Freddie Freeloader.” He formed a namesake trio with Paul Chambers and Jimmy Cobb.

ANSWER: Wynton Kelly

13. It is equivalent to the simpler Darboux integral, which uses the width of only the largest and smallest intervals. For 10 points each:

[10] Name this integral, the limit of its namesake sums, which approximate the area under a curve using rectangles.

ANSWER: Riemann integral

[10] This man, sometimes along with Riemann, names a theorem stating a function is Riemann-integrable if and only if it is bounded and the discontinuities have measure zero in this man’s namesake measure.

ANSWER: Henri Lebesgue

[10] A hypothesis for the above theorem is that we consider the function on a set with this property. By the Heine-Borel theorem, a subset of Euclidean space has this property if and only if it is closed and bounded.

ANSWER: compactness

14. Several people in Greco-Roman mythology underwent sex changes. For 10 points each:

[10] This man was turned into a woman when he struck two copulating snakes. He was later struck blind by Hera for telling Zeus that women enjoy sex more than men do, and Zeus gave him the gift of prophecy as compensation.

ANSWER: Tiresias

[10] Caeneus was turned into a man invulnerable to weaponry after being raped by this god. This god also had an affair with Amythone after saving her from a satyr and was the father of Chrysaor.

ANSWER: Poseidon [or Neptune]

[10] This character’s mother Telethusa raised her as a boy to prevent her father Ligdus from killing her. She grew up, fell in love with a woman named Ianthe, was turned into a man in response to Telethusa’s prayers.

ANSWER: Iphis

15. Answer some questions about a concept that’s inconsistent with classical economic models, for 10 points each.

[10] Name that concept, exemplified by a participant in a game who elects to take \$50 rather than flip a coin and take \$101 for heads and \$0 for tails.

ANSWER: **risk aversion** [or **loss aversion**; accept **St. Petersburg Paradox**]

[10] For a single consumer, risk aversion is a concave curve in a plot of this function against the consumer's money. The "marginal" variety is the amount gained or lost from a step increase or decrease of consumption of a product.

ANSWER: expected **utility**

[10] This scientist presented the problem of risk aversion in his St. Petersburg Paradox. He names a utility function in which utility scales logarithmically, rather than linearly, with increasing wealth.

ANSWER: Daniel **Bernoulli**

16. The title character of this play is honored every year at a namesake festival in Interlaken, during which this play is performed. For 10 points each:

[10] Name this play whose title character earns the enmity of his rival by rowing into a storm on a lake to rescue a peasant. The initial confrontation between the two occurs despite the urging of the title character's wife, Hedwig.

ANSWER: **William Tell** [or **Wilhelm Tell**]

[10] *William Tell* is set in this European country, where Tell was a hero for fighting against Austrians such as Governor Gessler.

ANSWER: **Switzerland** [or **Swiss** Confederation; or **Schweiz**; or **Suisse**; or **Svizzera**; or **Svizra**]

[10] This author retold the William Tell myth for Swiss schools, but is better known for a novel in which a UNESCO engineer finds out that Sabeth is his daughter, titled *Homo Faber*.

ANSWER: Max Rudolf **Frisch**

17. During this conflict, Exocet missiles sunk the HMS Sheffield. For 10 points each:

[10] Name this conflict that began with an invasion of South Georgia and the surrender of the city of Stanley to forces from a country ruled by Leopoldo Galtieri.

ANSWER: **Falkland Islands** War [or **Falklands** War; or Guerra de las **Malvinas**]

[10] The Falklands War took place during the prime ministry of this politician, nicknamed the "Iron Lady."

ANSWER: Margaret **Thatcher**

[10] During their re-invasion of the Falklands, Argentine air strikes forced the British to fight this battle, in which they took Darwin Hill before defeating Italo Piaggi's forces to take the namesake city on South Falkland Island.

ANSWER: Battle of **Goose Green**

18. A peroxide and an alkene may react together in a "butterfly mechanism" to form this functional group. For 10 points each:

[10] Name this functional group, a cyclic ether with the oxygen atom bonded to two carbon atoms in the shape of a triangle.

ANSWER: **epoxide** [or **oxirane**]

[10] Describe the kind of site on an asymmetric epoxide that an acidic solution of methanol would prefer to attack in a ring-opening reaction.

ANSWER: the **more-substituted** site [or the **more** sterically **hindered** site; or anything that means the site with **more stuff attached to it** or the **more-crowded** site]

[10] The name "epoxy" is commonly used to denote these sorts of compounds consisting of epoxides. These compounds are made up of many monomers.

ANSWER: **polymers**

19. This novella starts with the impressment of the protagonist into duty on the *HMS Bellipotent*. For 10 points each:

[10] Name this novella in which the young protagonist strikes and accidentally kills Claggart and is then sentenced to death at the insistence of Captain Vere.

ANSWER: **Billy Budd**

[10] In this other novel by the author of *Billy Budd*, the narrator must leave Doctor Long Ghost behind on Tahiti in order to board a whaler to finally take him away from the island.

ANSWER: **Omoo**: *A Narrative of the South Seas*

[10] This author of *Billy Budd* and *Omoo* also wrote *The Confidence-Man* and a work about Ishmael's adventures on the Pequod.

ANSWER: Herman **Melville**

20. There were this many collaborators on a 1920 album of piano pieces. For 10 points each:

[10] Give this number of French composers who formed a group in Montparnasse. Beethoven's symphony of this number was nicknamed *The Pastoral*.

ANSWER: Les Six

[10] This Swiss Les Six composer wrote the dramatic psalm *Le roi David* as well as the orchestral work *Pacific 231*, which depicts a steam locomotive.

ANSWER: Arthur Honneger

[10] This spokesman for Les Six asked them to write music for his ballet *The Wedding Party* on the Eiffel Tower, though he's better known for films like *Beauty and the Beast* and novels like *Les enfants terribles*.

ANSWER: Jean Maurice Eugene Clement Cocteau

21. Because they are formed by very non-viscous lava, they cover a large area and have a comparatively low profile. For 10 points each:

[10] Name these types of volcanoes, examples of which include the Hawaiian Islands and Olympus Mons.

ANSWER: shield volcanoes

[10] The magma from shield volcanoes is almost always of this type, contrasted with felsic. It is named for its high amounts of magnesium and iron.

ANSWER: mafic

[10] As opposed to basaltic and andesitic, this type of magma is the most felsic, and most commonly forms stratovolcanoes.

ANSWER: rhyolitic

22. For 10 points each, answer these questions relating to Hindu fire-sacrifices.

[10] The Hindu fire-sacrifice frequently involves the use of this delicious clarified butter, which is also used in Ayurvedic medicine.

ANSWER: Ghee

[10] This deity, whose name is the first word of the first hymn of the Rig Veda, carries sacrifices to the rest of the gods and licks up ghee with is seven fiery tongues.

ANSWER: Agni

[10] Agni has three sons, whom the Vayu Parana states represent electric fire, frictional fire, and solar fire. Name any of the three.

ANSWER: Pavaka or Pavamana or Suchi