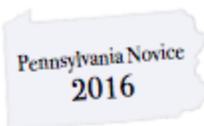


Pennsylvania Novice 2016

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Packet 6 Tossups

1. Rupert Brooke created a collection of these works including “The Soldier,” and another one inspired by World War I is Wilfred Owen’s “Anthem for Doomed Youth.” A 13th century author structured these using an octave and a sestet, while the English variety ends with a (*) couplet. A 17th-century collection of these concern the Fair Youth and Dark Lady and include the line, “Shall I compare thee to a summer's day?” For 10 points, name this type of fourteen-line poem that includes many written by Petrarch and Shakespeare.

ANSWER: **sonnet** (prompt on poem before mention)

2. This country’s state of Mato Grosso do Sul contains a massive inland wetland called the Pantanal. An opera house built by profits from the rubber trade is found in its city of Manaus. This country’s third most-populous city is Salvador in the state of Bahia. A major city of this country contains the large urban Tijuca rainforest and is overlooked by a (*) statue of Christ the Redeemer. For 10 points, name this largest and most populous country in South America whose capital is Rio de Janeiro.

ANSWER: **Brazil**

3. The protagonist of this play is called a “little squirrel” before being chided for spending too much on Christmas gifts. A character in this play distracts another from opening a letter by pretending to need dance coaching. This play’s protagonist is blackmailed concerning a loan she took out for a trip to Italy using a forged signature, Krogstad is the blackmailer. This play ends with a door being slammed as (*) Torvald’s wife Nora Helmer walks out on him as she no longer wishes to be part of the metaphorical title plaything. For 10 points, name this play by Henrik Ibsen.

ANSWER: *A Doll’s House* (or **A Doll House**; or **Et Dukkehjem**)

4. The virial theorem states that for an inverse-square force, the time average of this quantity is negative one half times the time average of kinetic energy. For two point charges, this quantity equals the two charges multiplied together over the distance, all times Coulomb’s constant. (*) Work is equivalent to the negative change of this quantity. For a falling object, this quantity equals mass times height times the acceleration due to gravity. For 10 points, name this quantity which, for a spring, is given by one half times the spring constant times the displacement squared.

ANSWER: **potential energy** (prompt on energy)

5. In one game, this character fuses with Doctor Prognosticus and becomes the final boss. In 2013, the company that created this character declared a “Year of” him featuring three new releases. In Super Smash Brothers Brawl, his final smash is the (*) Negative Zone. One game starring this character uses the Poltergust 5000 to suck up ghosts from a mansion he won in a contest he never entered. For 10 points, name this green-clad plumber, the younger brother of Mario.

ANSWER: Luigi

6. On the far left of this painting, a tail transforms into smoke and at the bottom a flower sprouts from the hilt of a broken sword. A lightbulb illuminates a horse speared on its side with an open wound and a body composed of newsprint-like coloring. A mother on the left (*) weeps over a dead child underneath a large bull, which may represent fascism. For 10 points--name this 1937 work by Pablo Picasso that depicts the title Basque village being bombed.

ANSWER: Guernica

7. A kind of this cell that only connects to two other cells is called “bipolar.” These cells are surrounded and supported by glial cells such as oligodendrocytes and Schwann cells. Parts of them contain Nodes of Ranvier, or gaps in the myelin sheath, which is damaged in (*) multiple sclerosis. These cells release vesicles containing chemicals like acetylcholine or serotonin into synapses. Axons extend from these cells towards dendrites. For 10 points, name these functional cells of the nervous system.

ANSWER: neuron (or bipolar neurons; prompt on nerves or nervous tissue)

8. An army from what is now this modern-day nation attempted to invade the Joseon dynasty but was repelled by turtle ships. One general in this nation led “winter” and “summer” campaigns to try to capture his enemy’s recently rebuilt castle. In 1281 this nation’s defeat of the navy of (*) Kublai Khan with the help of a typhoon was attributed to a “divine wind.” The siege of Osaka occurred in this nation, which Tokugawa Ieyasu once led. For 10 points, name this nation that on December 7th, 1941, bombed Pearl Harbor.

ANSWER: Japan (or Nippon)

9. In this novel, Zillah shows Mr. Lockwood a hidden room with a diary where a ghostly figure scratches at the window. Nelly Dean narrates most of this novel, where the Linton manor of Thrushcross Grange is found across the moors from the title (*) estate. Catherine and Hareton marry at the end of this book after the brooding Heathcliff dies. For 10 points, name this Victorian novel written under the pen name “Ellis Bell,” the only novel by Emily Bronte.

ANSWER: Wuthering Heights

10. The refusal to accept an envoy led by John Slidell helped start this conflict. This war was won when a general nicknamed “Old Fuss and Feathers” captured the opposition’s capital. A young Abraham Lincoln challenged this war in the Spot Resolutions. The U.S. received the former (*) Bear Flag Republic after this war, which ended with the Treaty of Guadalupe Hidalgo. For 10 points, name this war, which included battles at Veracruz and Buena Vista, fought against the United States’ southern neighbor.

ANSWER: Mexican-American War

11. One of this man’s poems states that “tomorrow I’ll be at the table when the company comes.” This poet wrote “America was never America to me” and “Let it be the dream it used to be,” in his “Let America be America Again.” In another of his poems he wrote, “Life for me ain’t been no (*) crystal stair,” and in a fourth poem this poet states, “I bathed in the Euphrates when dawns were young.” For 10 points, name this Harlem Renaissance poet of “Mother to Son” and “The Negro Speaks of Rivers.”

ANSWER: James Mercer Langston Hughes

12. On Tishu B’av, Jews use this practice to commemorate the fall of the First Temple. The “Daniel” variety of this practice involves restriction to pulses. Pentecostals practice a “black” variety of this practice, which is unusually extensive. Taqua is said to be gained by Muslims who engage in this practice, called (*) sawm, from dawn till dusk during Ramadan, and Jews engage this practice during repentance on Yom Kippur. For 10 points, name this religious practice in which a person abstains from food.

ANSWER: fasting (accept sawm or ta'aint before mention; prompt equivalents like “not eating” before the question is finished)

13. The *Pagina/12* newspaper falsely claimed that this man gave bread to Jorge Videla. This man said that, “The Earth is beginning to look like an immense pile of filth” in his *Laudato Si*. This man ordered the opening of doors as part of a Jubilee Year of Mercy decree. In February 2016, he suggested that (*) contraceptives could be used in areas with Zika. He headlined the 2015 World Meeting of Families in Philadelphia and was formerly known as Jorge Bergoglio. For 10 points name this former Cardinal of Buenos Aires, the current pope.

ANSWER: Pope Francis (or Jorge Bergoglio before mention; prompt on the pope)

14. In one opera by this composer, Leporello recounts his master’s romantic successes in the “Catalogue Aria.” A late work by this composer contains the “Amen Fugue” and was finished Franz Xaver Sussmayr after his death. That piece was this composer’s (*) *Requiem*. One symphony by this composer includes a five-voice fugato at its end. This man’s serenades include the *Posthorn* and *Eine Kleine Nachtmusik*. For 10 points, name this composer of the *Jupiter Symphony*, a famous child prodigy.

ANSWER: Wolfgang Amadeus Mozart

15. At room temperature, hydrophobic molecules associate to decrease this quantity for surrounding water molecules. Reversible processes do not have a change in this quantity, and processes where this quantity is held constant are called isentropic. For a crystal, the third law of thermodynamics states this quantity approaches (*) zero as the temperature approaches absolute zero, while the second law states this quantity always increases in a closed system. For 10 points, name this quantity symbolized S that describes the disorder of a system.

ANSWER: **entropy** (or **S** before mention)

16. Processes associated with these features are termed fluvial. Parts of these features can become isolated from the main body to form billabongs or oxbow lakes. The area along these features that supports life is called the riparian zone. A bend in these features is called a (*) meander, and their drainage basin is often referred to as a watershed. For 10 points, name these bodies of water that drain towards the ocean, which includes the Amazon.

ANSWER: **river** (or **stream**)

17. This psychologist recorded his personal struggles with psychosis in his “Red Book,” which was not published until 2009. This psychologist proposed a principle principle that events linked in meaning need not share causes, which he dubbed “synchronicity.” He also theorized about an (*) unconscious male type called the animus and a female type called the anima, which are examples of his archetypes. For 10 points, name this Swiss Psychologist who developed the idea of the collective unconscious.

ANSWER: Carl Gustav **Jung**

18. This man almost died when Izola Curry stabbed him with a letter opener during a signing for his book *Stride Toward Freedom*. This man was the first president of the Southern Christian Leadership Conference. He advocated (*) non-violent lawbreaking to challenge racism in his “Letter from a Birmingham Jail.” This man rose to prominence while organizing the Montgomery Bus Boycott. For 10 points, name this civil rights activist who delivered the “I Have a Dream” speech.

ANSWER: Martin Luther **King**, Jr.

19. In one work by this man, a tennis star meets a man on a train who proposes that they “swap” murders. This man carries a bass up some stairs in a cameo in *Strangers on a Train*. In another work by this man, a crop duster plane attempts to assassinate an advertising executive who later travels to Mt. Rushmore. In another one of his works, (*) shrieking string instruments are used in a scene with 77 shots as a shadowy figure stabs Marion Crane, portrayed by Janet Leigh, in the shower. For 10 points, name this director of thrillers like *North by Northwest* and *Psycho*.

ANSWER: Alfred **Hitchcock**

20. Early in life, this man published the radical newspaper *La Voce*; much later he was rescued from imprisonment at Hotel Campo by another country's military. The Acerbo Law was passed to give this man's party control over his nation's parliament. He gained power from King Victor (*) Immanuel III with the help a paramilitary organization called the Blackshirts; with them he established the world's first fascist government after the March on Rome. For 10 points, name this Italian dictator from 1923 to 1945, nicknamed "Il Duce".

ANSWER: Benito Mussolini (prompt on Il Duce before read)

TB. A Russian known as the Harlequin falls off a boat in this novella as the helmsmen is also impaled by attackers. Near this novella's beginning, the narrator talks with a group aboard the Nellie about his childhood fascination with blank spaces on maps. A postscript to this work sees the protagonist come across a note that reads (*) "exterminate all the brutes!" One character's final words in this novella are "The Horror! The Horror!" For 10 points, Marlow travels up the Congo River in search of Mr. Kurtz in what novella by Joseph Conrad?

ANSWER: *Heart of Darkness*

Pennsylvania Novice 2016

The logo for the Pennsylvania Novice 2016 competition, featuring the text "Pennsylvania Novice 2016" in a stylized font within a light blue, map-like shape.

Packet 6 Bonuses

1. This man's namesake law states that equal volumes of two gases kept at the same temperature and pressure will have equal numbers of molecules. For 10 points each:

[10] Name this Italian chemist, the namesake of the number of molecules in a mole.

ANSWER: Lorenzo Romano Amedeo Carlo **Avogadro** di Quaregna e di Cerreto

[10] This other law of atomic theory, formulated by Dalton, states that the amounts of various elements present in a given compound should be in integer ratios.

ANSWER: **law of multiple proportions**

[10] The law of multiple proportions, along with the law of conservation of mass, help form this branch of chemistry, which can be used to determine how much of each product in a chemical reaction will actually be produced.

ANSWER: **stoichiometry**

2. Name some things about the American Wild West for 10 points each:

[10] Perhaps the most famous Western Shootout, this location in Tombstone, Arizona saw the McLaurry Brothers and others killed by Wyatt Earp's lawmen in October 1881.

ANSWER: **O.K. Corral**

[10] The next year, this outlaw was shot in the back by Robert Ford. A former confederate bushwhacker, he robbed many banks and wagon trains with his gang and his brother Frank.

ANSWER: Jesse Woodson **James**

[10] Many old Western towns have become this type of town, abandoned to the elements as they are no longer economically viable. Examples include Bodie, California, and Goldfield, Arizona.

ANSWER: **ghost** towns

3. This island's highest mountain of Ben Nevis is part of the Grampian Mountains. For 10 points each:

[10] Identify this large island east of Ireland, on which both England and Scotland are found.

ANSWER: Great **Britain** (do not accept or prompt on "United Kingdom")

[10] This country within the United Kingdom is also found on the island of Great Britain. Its symbol is a red dragon and its capital is at Cardiff.

ANSWER: **Wales**

[10] Between Britain and Ireland lies this autonomous island in the Irish Sea. Its capital is Douglas and it hosts a major motorcycle race each year called the TT.

ANSWER: Isle of **Man**

4. In a work set in this country, Song Jiang writes a seditious poem while drunk and then is forced to become an outlaw leader in the Liangshan Marsh. For 10 points each:

[10] Name this country, the setting of works such as the *Outlaws of the Marsh* as well as the *Romance of the Three Kingdoms* that describes the states of Wei, Shu, and Wu.

ANSWER: **China**

[10] In this other Chinese novel, Xuanzang (shoo-wen-ZHANG) and the Monkey King take a trip to India in search of Buddhist texts.

ANSWER: **Journey to the West** (or **Xi You Ji**)

[10] *Romance of the Three Kingdoms* and *Journey to the West* are among China's classic novels, of which there are this many. Gulliver travels to this many destinations in *Gulliver's Travels*.

ANSWER: **four**

5. Arthur Schoenberg pioneered this style in works such as *Pierrot Lunaire*. For 10 points each:

[10] Name this style of music that usually lacks a standard key and may wander freely through any set of chords.

ANSWER: **atonal**

[10] Schoenberg and other atonalists like Alban Berg worked mostly in this country, where Viennese Waltzes were popularized in the late 19th century.

ANSWER: **Austria** or **Austria-Hungary** or **Osterreich**

[10] A father and son with this last name both composed a variety of waltzes including "The Beautiful Blue Danube" and "Tales from the Vienna Woods."

ANSWER: **Strauss**

6. For 10 points each, name some things about genocides:

[10] Ottoman authorities exterminated these people during World War One, often by marching them into the Syrian desert. These Christian people were considered of suspect loyalty by the Ottomans.

ANSWER: **Armenians**

[10] In 1994, the ethnic majority Hutu people began mass killings of the minority Tutsi in this nation. Ethnic tensions had been fanned by Belgian colonizers favoring the Tutsis before independence.

ANSWER: **Rwanda**

[10] The Holodomor, a horrid 1930s famine in this modern-day country, is sometimes considered an ethnic genocide due to its onset as a result of Soviet farm collectivization policy.

ANSWER: **Ukraine**

7. Neoptolemus threw the infant Astyanax off the walls of this city. For 10 points each:

[10] Name this city, conquered by the Greeks with the aid of a large wooden horse.

ANSWER: **Troy** (or **Ilium**)

[10] According to Virgil, this king of Troy was killed by Neoptolemus during the fall of Troy. His children included Paris and Deiphobus.

ANSWER: **Priam**

[10] This daughter of Priam was given the gift of prophecy by Apollo, but her prophecies were cursed to never be believed by anyone. Following the war, she was taken captive by Agamemnon, resulting in her death at the hands of Clytemnestra and Aegisthus.

ANSWER: **Cassandra** (or **Alexandra**)

8. This work begins with the narrator in a dark woods, finding his path blocked by a leopard, a lion, and a she-wolf. For 10 points each:

[10] Name this work in which Virgil guides the narrator, the first part of the *Divine Comedy*.

ANSWER: **Inferno**

[10] This author of the Inferno is also its narrator. His unrequited love for a woman named Beatrice inspired many of his works.

ANSWER: **Dante Alighieri** (accept either underlined part)

[10] Dante's version of hell has this many circles. The innermost circle is for the treacherous, and includes people like Cain and Judas.

ANSWER: **nine**

9. Impurities in this mineral can produce the gems ruby and sapphire. For 10 points each:

[10] Name this mineral, a crystal form of aluminum oxide.

ANSWER: **corundum**

[10] This other mineral, a crystalline form of silicon dioxide, can present as the purple colored gem amethyst. At meteor impact sites, the "shocked" form of this mineral can appear.

ANSWER: **quartz**

[10] Corundum and quartz are both present on the Mohs scale, which measures this property determined by a mineral's ability to visibly scratch another mineral.

ANSWER: **hardness**

10. The moons Nyx and Hydra were photographed in orbit around this astronomical body in July 2015.

For 10 points each:

[10] Name this dwarf planet that was demoted from being one of the original 9 planets in 2006, but was visited by a recent NASA mission.

ANSWER: **Pluto**

[10] This NASA probe visited Pluto in July 2015 and provided the first high-resolution images of Pluto's surface. Its mission will continue as it flies into the Kuiper Belt.

ANSWER: **New Horizons**

[10] A large bright white section of nitrogen ice and other brightly reflective material makes up the "regio" on Pluto that was named for this astronomer who first discovered Pluto in 1930.

ANSWER: Clyde **Tombaugh**

11. This artist depicted three swans on a lake whose reflection appears as elephants in one painting. For 10 points each:

[10] Name this artist, who glued a plastic lobster to a telephone for a sculpture and who painted melted clocks in *The Persistence of Memory*.

ANSWER: Salvador **Dali** i Domenech

[10] Dali included 28 depictions of this sculpture in *The Hallucinogenic Toreador*. Thought to have been sculpted by Alexandros of Antioch, this Hellenistic sculpture is most famous for its missing two features.

ANSWER: **Venus de Milo**

[10] Dali was native to this European nation. Another artist from her was Diego Velasquez, who painted the Royal family of its King, Philip IV, in *Las Meninas*.

ANSWER: **Spain** (or **Espana**)

12. Answer some questions about the discovery of DNA, for 10 points each.

[10] The 1962 Nobel Prize in Physiology or Medicine was awarded to these two scientists commonly considered to have discovered the structure of the DNA molecule.

ANSWER: James **Watson** and Francis **Crick** (accept in either order)

[10] Watson and Crick deduced DNA has this structure using x-ray crystallography data from Rosalind Franklin. Two stands of DNA form hydrogen bonds to each other with pairs of nitrogenous bases.

ANSWER: **double helix** (prompt on **helix** or **helical**)

[10] The actual information in DNA is stored in the sequence of four bases: guanine, cytosine, adenine, and thymine. In the similar RNA molecule, thymine is replaced with this fifth nitrogenous base.

ANSWER: **uracil**

13. This man's wife, Jiang Qing, was a member of the Gang of Four. For 10 points each:

[10] Name this chairman of the Chinese Communist Party, whose quotations were collected in the *Little Red Book*.

ANSWER: **Mao** Zedong (or **Mao** Tse-tung; or Chairman **Mao**)

[10] The Gang of Four helped Mao implement this ten year reform movement in the 1960s and 70s. This movement sought to weed out vestigial capitalism in China by displacing and killing millions.

ANSWER: Great Proletarian **Cultural Revolution**

[10] This military leader of the Kuomintang led the Northern Expedition at the start of the Chinese Civil War. He later led the Republic of China's exiled government on Taiwan.

ANSWER: **Chiang** Kai-shek (or **Jiang** Jieshi; or **Jiang** Zhongzheng)

14. This band is the only group to occupy the top 5 spots on the Billboard Singles Chart simultaneously. For 10 points each:

[10] Identify this British rock group. Their namesake "mania" began the British Invasion on the back of hits such as "She Loves You," "Love Me Do," and "I Want to Hold Your Hand."

ANSWER; The **Beatles**

[10] The Beatles began to explore psychedelic sounds on this 1966 album. Its track "Tomorrow Never Knows" includes backmasked laughter and tape loops, and "Love You Too" incorporates the sitar.

ANSWER: **Revolver**

[10] The sitar on "Love You Too" was played by this Beatle, their lead guitarist. His other songwriting contributions to the group include his tender ode to his wife Patti, "Something," on *Abbey Road*.

ANSWER: George **Harrison**

15. This play centers upon a bet made between Colonel Pickering and the phonetics professor Henry Higgins. For 10 points each:

[10] Name this play by George Bernard Shaw, in which Higgins trains a cockney girl to speak impeccably.

ANSWER: **Pygmalion**

[10] This is the woman Higgins trains. She gains confidence as the play goes on, confronts Higgins' use of her for menial tasks by throwing slippers at him, and ends the play leaving to possibly marry Freddy.

ANSWER: **Eliza Doolittle** (accept either underlined part)

[10] Eliza's initial job is as a street vendor for these plants. Other literary titles including them are "these things" for Algernon.

ANSWER: **flowers**

16. This monarch ended the tradition of the wandering Spanish Court when he selected Madrid to be the permanent capital. For 10 points each:

[10] Name this King of Spain from 1556 to 1598. His faced the Dutch revolt in the Netherlands and was at one point married to England's Queen Mary I.

ANSWER: **Philip II** (or **Felipe II**)

[10] An ardent Catholic, Philip expelled Spain's Moriscos, who descended from converts of this religion. The Moriscos mostly converted after the capture of Granada, which was ruled by people of this religion.

ANSWER: **Islam** (or **Muslims**)

[10] Philip's Spain led the Holy League, which defeated the Ottoman Turks at this decisive naval battle off the coast of Cyprus in 1571. This battle prevented further Ottoman expansion into the Mediterranean.

ANSWER: Battle of **Lepanto**

17. When enough energy is put into a gas, it can become ionized to this substance. For 10 points each:

[10] Name this fourth state of matter created by heating a gas or applying an electromagnetic field.

ANSWER: **plasma**

[10] Plasmas typically act as these substances that allow electrons to flow freely through them.

ANSWER: **conductors**

[10] In plasma physics, this device is used to contain plasmas for study. Its name derives from a Russian acronym meaning "toroidal chamber with magnetic coils."

ANSWER: **tokamak**

18. This opera was based on a legendary Swiss leader who allegedly shot an apple off his son's head. For 10 points each:

[10] Name this opera based on a play by Friedrich Schiller that includes a famous "overture" depicting a cavalry charge.

ANSWER: **William Tell**

[10] William Tell was composed by this Italian, who retired from composing to become an amateur cook.

ANSWER: Giachino **Rossini**

[10] In this Rossini comic opera, Figaro gives Bartolo a shave in the titular Spanish city while foiling the schemes of Count Almaviva.

ANSWER: The **Barber of Seville**

19. This literary movement's core ideas focused on the power of the individual and emphasized the importance of beauty and nature. For 10 points each:

[10] Name this American school of thought centralized in the Northeast, whose notable members included Henry David Thoreau.

ANSWER: **Transcendentalism**

[10] The founder and main proponent of Transcendentalism was this poet and essayist of “Nature” and “Self-Reliance”.

ANSWER: Ralph Waldo **Emerson**

[10] One of Thoreau’s most notable works is *Walden*, which is about the two years he spent living in a cabin on this type of water feature. This kind of feature is usually smaller than a lake and is also popular for ice-skating in the winter.

ANSWER: **pond**

20. This text is part of the larger Mahabharata, appearing in the latter's sixth chapter. For 10 points each:

[10] Name this text in which the charioteer Krishna, an avatar of Vishnu, outlines many basic tenets of Hinduism such as the concept of dharma and various types of yoga.

ANSWER: **Bhagavad Gita**

[10] Krishna is the charioteer for this character, who is grappling with his dharma as a warrior required him to fight his own relatives during the Mahabharata.

ANSWER: **Arjuna**

[10] The Mahabharata is written in this language. Used in many sacred scripts, its similarity with Latin and Ancient Greek led linguists to develop the Indo-European language family.

ANSWER: **Sanskrit**

TB. Mechanical displacement can cause pressure waves to vibrate through a medium. For 10 points each:

[10] Name this type of wave, which travels through air at approximately 343 meters per second.

ANSWER: **sound** wave

[10] In air, the speed of 343 meters per second is a number named for this Austrian physicist. Anything past that speed is considered supersonic.

ANSWER: **Mach** number

[10] For a sound wave, pitch is modulated by the frequency of the wave, whereas volume is modulated by this quantity. This quantity is equal to the distance between the highest and lowest points of a wave.

ANSWER: **amplitude**