Pennsylvania Novice 2016

Written by Sameer Apte, Eric Barrett, Paul Birch, Greg Cortazzo, Seckin Kara, Aakash Patel, Reed Repasky, Steven Silverman, Srishti Srivastava, and Bill Tressler Edited by Ryan Bilger, Chris Chiego, Ben Herman, and Victor Prieto



Packet 8 Tossups

1. Emergency Manager Ed Kurtz urged this city to join the KWA, which led to breaking off an agreement with the DWSD. Mona Hanna-Attisha led a 2015 study at the Hurley Medical Center in this city that was initially dismissed by the Department of Environmental Quality. This Genesee County city also experienced an outbreak of Legionnaires' Disease after switching to drawing (*) water from its namesake river instead of from Detroit. For 10 points, name this Michigan city whose water supply was found in 2015 to have dangerous levels of lead.

ANSWER: Flint

2. An allotrope of this element with a spherical structure with pentagons and hexagons on its surface is called buckminsterfullerene, or the buckyball. Alkenes contain atoms of this element with an sp2 hybridization. Atomic mass units are defined as exactly one-twelfth the mass of an (*) atom of this element. It is the lightest element with four valence electrons, and propane contains three atoms of it. Its isotope 14 is used for radiometric dating. For 10 points, name this element found in all organic compounds and whose forms include diamond and graphite.

ANSWER: carbon

- 3. While in California, this artist worked on a project later entitled *Born Free and Equal*, chronicling Japanese-Americans' experiences at Manzanar internment camp. This creator of the "zone system" of exposure founded the group f/64. He is most famous for his black-and-white images of the American west, particularly of (*) Yosemite National Park. For 10 points, name this American photographer of *Moonrise: Hernandez, New Mexico* and *Moon and Half Dome*. ANSWER: Ansel Adams
- 4. One leader of this state denounced his predecessor in the "secret speech." That leader of this state waged the "kitchen debate" with Richard Nixon while visiting America, and banged a shoe on the table at the U.N. Its last head of state established policies of (*) "glasnost" and "perestroika," the latter of which re-introduced capitalist-like reforms to the country in the late 1980s. For 10 points, name this state which dissolved in 1991, the leaders of which included Nikita Khrushchev and Mikhail Gorbachev. ANSWER: U.S.S.R. (or Union of Soviet Socialist Republics or Soviet Union or CCCP or Soyuz Sovetskikh Sotsialisticheskikh Respublik, prompt on Russia)

- 5. This word refers to the clerical interests of Julien Sorel in the title of a work by Stendhal. There are 12 million of these voices in a folk history by Richard Wright, who also paired this adjective with "boy" to title an autobiography describing Wright's experience growing up in the South and Chicago. A horse called "this word" (*) Beauty narrates a novel by Anna Sewell in first person. For 10 points, name this color which is also the surname of Harry Potter's godfather Sirius.

 ANSWER: black (accept the full names of 12 Million Black Voices, Black Boy, Black Beauty, and Sirius Black)
- 6. This figure instructed a trapper to visit Shamhat and have her seduce one of his enemies. With the aid of the winds of Shamash, this character confronted the Cedar Forest guardian Humbaba. This character cut down 120 trees to help find Utnapishtim and learn the secret of immortality. This figure and his friend (*) Enkidu slew the Bull of Heaven after it was sent by Ishtar. For 10 points, name this legendary king of Uruk, the Sumerian hero of a namesake "Epic".

ANSWER: Gilgamesh (or Bilgamesh)

7. This country controls the Lakshadweep islands and is the site of the long-running Naxalite Maoist insurgency. Several Dravidian languages including Telegu and Tamil are spoken in this country's south. The Eastern and Western Ghats in this country are separated by the volcanic soil of the (*) Deccan Plateau. This country's most populous state is Uttar Pradesh and it borders both the Arabian Sea and the Bay of Bengal. For 10 points, name this South Asian country whose cities include Mumbai and Delhi.

ANSWER: India

8. In one work by this playwright, a son traps his father inside a house due to that father's addiction to serving as a juror. In addition to *The Wasps*, another play by this man describes a trek into Hades by Dionysus to retrieve Euripides that is interrupted by some (*) amphibians who serve as the chorus for that play. This playwright also wrote about a group of females who lock themselves in the Acropolis until the Greek men stop fighting. For 10 points, name this comedic Greek playwright of *The Frogs* and *Lysistrata*.

ANSWER: Aristophanes

9. Wheatstone bridges are comprised of this many resistors. The vacuum permeability is equal to this integer times pi times ten to the negative seventh newtons per ampere squared. Both the Maxwell relations in thermodynamics and the Maxwell equations in electrodynamics typically contain this many equations. (*) This many protons and neutrons are found in an alpha particle, and if electromagnetism and the weak force are considered separate, there exists this many fundamental forces. For 10 points, name this number often used to describe the dimension of time.

ANSWER: four

10. In an election in this year, the Youth International Party nominated Pigasus the pig as its candidate. The two finalists for the Democratic nomination in this year both hailed from Minnesota. Sirhan Sirhan assassinated (*) Bobby Kennedy after he won the California primary in this year. The Democratic National Convention for this year's election, held in Chicago, was marred by riots. For 10 points, name this presidential election in which Democrat Hubert Humphrey was defeated by Republican Richard Nixon.

ANSWER: Election of 1968

11. Charles Gounod set a Prelude in C Major by this composer to the Ave Maria hymn. The title of one collection by this man refers not to the composition itself, but to the tuning system of the instrument it was to be played on; that collection consisting of fugues and preludes in all 24 keys is the (*) Well-Tempered Clavier. A four-note motif ending in a b-natural is a musical cryptogram for this composer's last name. For 10 points, name this Baroque composer of a famous Minuet in G and the Brandenburg Concertos.

ANSWER: Johann Sebastian **Bach** (do not accept or prompt on "Offenbach")

- 12. A practitioner of this social science began his career on Baffin Island studying migration patterns of Eskimos. One work in this field studied Japan and put forward ideas of "guilt" and "shame" societies, that book is *The Chrysanthemum and the Sword* by Ruth Benedict. Many early pioneers of their field studied at (*) Columbia with Franz Boaz, who developed the concept of cultural relativism. For 10 points, name this social science, which is the study of mankind and its cultures. ANSWER: Anthropology
- 13. Near the beginning of this novel, the protagonist feels a sensation that "his eyeballs were about to crack like hot stones." This novel sees the protagonist witness the death of the "tall soldier," Jim Conklin. A member of the 304th regiment, Wilson, cares for a wound in this novel caused by a (*) rifle butt that is passed off as a gunshot injury. The protagonist carries the colors in the final charge of this novel. For 10 points, name this novel in which Henry Fielding deserts his regiment, by Stephen Crane. ANSWER: The *Red Badge of Courage*
- 14. At the ends of these structures, apical meristem tissue is constantly dividing. These structures form symbiotic relationships with fungi called mycorrhizae, and they may contain nodules that hold nitrogen-fixing bacteria. Tiny hairs extending from these structures collect nearby (*) moisture. They can come in fibrous and tap varieties, and turnips and parsnips produce edible ones. For 10 points, name these plant parts that anchor plants in place and retrieve nutrients from soil.

 ANSWER: plant roots (prompt on plants)

- 15. This empire was organized into four provinces called Suyu during a period of rapid expansion under Pachacuti. The final ruler of this empire was Tupac Amaru. This state kept records on a series of knotted ropes called quipus. Its leader (*) Atahualpa was not returned by Francisco Pizarro's conquistadors and died in captivity despite this people paying a roomful of gold as ransom. For 10 points, name this Pre-Columbian South American empire, which had a capital at Cuzco in modern day Peru. ANSWER: The Incan Empire (or Twantinsuyu)
- 16. The magnetic field of this body does not originate from an internal dynamo, but rather from its crust. The Centaur rocket impacted this body during the LCROSS mission and it was also visited by several Ranger missions. The leading hypothesis of this body's creation is known as the (*) giant-impact hypothesis and involves an ancient planet known as Theia. It contains numerous *maria* [MAR-ee-uh] of dark lava beds, including the Sea of Tranquility. For 10 points, name this celestial body that orbits the Earth.

ANSWER: Earth's Moon (or Luna)

17. In one work, this man distinguished between a kingship and tyranny to illustrate correct and deviant forms of politics. Noting that rashness and cowardice are both extremes, he advocated for a middle ground like courage in his doctrine of the mean. He emphasized the need to strive for eudaimonia [yoo-day-mo-nea], a type of happiness necessary for human flourishing, in his (*) Nicomachean Ethics. This founder of the Lyceum fled Athens after the death of his former tutee, Alexander the Great. For 10 points, name this Greek Philosopher, a student of Plato.

ANSWER: **Aristotle**

18. This man championed a domestic program termed the "Square Deal." This president won the Nobel Peace Prize for negotiating the Treaty of Portsmouth, which ended the Russo-Japanese War. This president's administration saw the passage of the (*) Pure Food and Drug Act and the creation of the National Park System. He ran for a third term with the Bull Moose Party. For 10 points, name this 26th President of the United States, the supposed namesake of a toy bear.

ANSWER: Theodore "Teddy" Roosevelt Jr. (or TR)

19. In one poem, this author wrote about a water-carrier who saves the narrator's life, only to be shot himself, concluding "You're a better man than I am, Gunga Din!" Another of his poems urges the reader to "send forth the best ye breed" and "have done with childish days." That work is (*) "The White Man's Burden." In another work by this man, the cobras Nag and Nagaina are defeated by the Mongoose Rikki Tikki Tavi. For 10 points, name this author who wrote about Shere Khan's pursuit of the man-cub Mowgli in *The Jungle Book*.

ANSWER: Rudyard Kipling

20. In one painting by this artist, a reclining figure on a couch removes her slippers and wears only a gold bracelet and a black ribbon in an imitation of Titian's *Venus of Urbino*. In another painting by this artist, a customer is seen only by reflection in a mirror behind a tired-looking barmaid at the title (*) *Bar at the Folies-Bergeres*. Two clothed men and one nude woman participate in the title event in another of his paintings that was rejected by the 1863 Salon. For 10 points name this French artist of *Olympia* and *The Luncheon on the Grass*.

ANSWER: Edouard Manet

TB. After a great storm, this man was marooned without supply on Jamaica for one year in 1503. Accusations of brutality such as cutting off a someone's ears and nose for stealing corn led to this man's imprisonment after a governorship. This man made contact with (*) Arawak Indians on San Salvador, and his major discovery occurred during his voyage on the Nina, the Pinta, and the Santa Maria. For 10 points, name this Genoan Mariner, credited with re-discovering the Americas in 1492.

ANSWER: Christopher **Columbus** (or Christoforo **Columbo**)

Pennsylvania Novice 2016

Packet 8 Bonuses

Pennsylvania Novice 2016

- 1. Tennessee had no shortage of action during the Civil War. For 10 points each:
- [10] This battle, which followed Fort Henry, was a major early victory for Ulysses S. Grant. His demands at this fort on the Cumberland River gave him the nickname "unconditional surrender."

ANSWER: Fort Donelson

[10] Later, Grant led forces at this April 1862 engagement, also called Pittsburg Landing. Confederate General Albert Sidney Johnston was killed here, and Don Carlos Buell's arrival helped the Union win.

ANSWER: Shiloh

[10] In December 1864, George S. Thomas routed John Bell Hood's army while defending this capital city of Tennessee.

ANSWER: Nashville

- 2. Many of Sir Walter Scott's works such as *The Bride of Lammermoor* and other "Waverly" novels are set in this area during the time of the Jacobite Risings. For 10 points each:
- [10] Name this region of Great Britain that served as the setting for Robert Louis Stevenson's *Kidnapped* as well as other novels about the outlaw Rob Roy.

ANSWER: Scotland

[10] This Scottish poet wrote about a "Wee, sleekit, cow'rin, tim'rous beastie" in "To a Mouse" as well as "My Love is Like a Red, Red Rose."

ANSWER: Robert Burns

[10] Burns also composed this poem, often sung at New Year's Celebrations, that opens with "Should old acquaintance be forgot?"

ANSWER: "Auld Lang Syne"

- 3. This statement can be derived from the conservation of energy, and states that an increase in velocity of a fluid is accompanied by a decrease in fluid pressure. For 10 points each:
- [10] Name this law named for an Italian scientist, which is the guiding principle behind airplane flight.

ANSWER: Bernoulli's principle (or Bernoulli's law, or Bernoulli's equation)

[10] This other law from fluid mechanics states that applying a change in pressure to any point in a fluid results in that pressure being transmitted equally to everywhere else in the fluid.

ANSWER: Pascal's law

[10] The force opposing motion in a fluid is known by this name. It increases as the velocity of the moving object increases.

ANSWER: drag

- 4. In Central Africa, "talking" versions of these instruments were used to send messages between villages. For 10 points each:
- [10] Name these types of percussion instruments. Orchestras often use timpani types of these instruments while rock bands may employ snare and bass versions.

ANSWER: drum

[10] West African versions of these percussion instruments called marimbas were created using hollow gourds. These instruments generally have musicians use mallets to strike wooden bars of different lengths.

ANSWER: xylophone

[10] This instrument with a German name is related to a xylophone but differs by having metal instead of wooden bars. They are often smaller and thus higher in pitch than xylophones.

ANSWER: glockenspiel

- 5. A 5,100 year old human corpse nicknamed Otzi was preserved in the snows of this mountain range until being discovered in 1991. For 10 points each:
- [10] Name this European mountain range which contains the country of Liechtenstein as well as parts of Austria and Switzerland. The novel and movie *Heidi* are set in this mountain range.

ANSWER: Alps

[10] This other European mountain range separates Spain from France. The Basque language is spoken in parts of this range.

ANSWER: **Pyrenees**

[10] This small country in the Pyrenees relies on France for its national defense and is the only country where Catalan is the majority language.

ANSWER: **Andorra**

- 6. Edwin Hubble classified these objects on a "tuning fork" diagram based on their shape. For 10 points each:
- [10] Name these huge clusters of stars, examples of which include the Magellanic Clouds, Triangulum, and the Milky Way.

ANSWER: galaxies or galaxy

[10] Our nearest major galactic neighbor, the Andromeda Galaxy, is an example of this type of galaxy characterized by a flat, rotating disk with arms.

ANSWER: spiral

[10] The Milky Way is also a spiral galaxy, but it belongs to a different classification than Andromeda because it has these structures that extend from the center to the spiral arms.

ANSWER: bars (accept barred spiral)

- 7. This man's drama about Mozart and Salieri was later adapted into the movie *Amadeus*. For 10 points each:
- [10] Name this Russian poet and playwright who wrote the narrative epic *Ruslan and Ludmilla* as well as multiple love poems like "To ***" ["three asterisks"]

ANSWER: Alexander Pushkin

[10] The title character of Pushkin's *Eugene Onegin* reluctantly kills Lensky in one of these events after Lensky feels insulted. Pushkin himself participated in this type of event 29 times, eventually leading to his own death.

ANSWER: a duel

[10] In Pushkin's *The Bronze Horseman*, the titular statue comes to life in this Russian city. This city's establishment on a coastal marshland inhabited by poor Finnish peasants makes up the introduction of the poem.

ANSWER: St. Petersburg

- 8. The Pyramid Texts tell of a central story to Egyptian mythology. For 10 points each:
- [10] This god of the dead and the underworld was at one point chopped into 14 pieces. He is usually depicted with green skin, and his dismembered body was re-assembled by his wife, Isis.

ANSWER: Osiris

[10] This brother of Osiris murdered him in an attempt to usurp the throne. He was also the father of Anubis, by Nephthys.

ANSWER: Set (or Seth)

[10] Osiris is often depicted holding the crook and flail, which were the symbols of these people Ancient Egypt. They were buried at various points in mastabas, pyramids, and in the Valley of the Kings.

ANSWER: **pharoah**s

- 9. This man started a civil war by crossing the Rubicon River with his legions, remarking "the die is cast." For 10 points each:
- [10] Name this Roman general, who became dictator for life soon after defeating his rival Pompey at the Battle of Pharsalus. He was later assassinated in the Senate on the Ides of March.

ANSWER: Gaius <u>Julius Caesar</u> (Prompt on <u>Caesar</u>)

[10] Caesar formed the First Triumvirate with Pompey and this other man. He was the richest man in Rome, because he had a monopoly on the fire companies and charged people to put fires out.

ANSWER: Marcus Licinius Crassus

[10] Before he crossed the Rubicon, Caesar conquered this province for Rome. It is roughly equivalent to modern France and derived its name from a group of Celtic tribes.

ANSWER: Gaul or Gallia

10. A seventeen-note one of these by the clarinet opens the piece *Rhapsody in Blue*. For ten points each: [10] Name this musical technique, which consists of a seamless slide between multiple notes.

ANSWER: glissando

[10] This man composed *Rhapsody in Blue* for piano and orchestra. He also wrote an opera set on Catfish Row in South Carolina, *Porgy and Bess*.

ANSWER: George Gershwin

[10] This aria from Porgy and Bess has become a frequently recorded jazz standard. It takes place when "the fish are jumpin" and "the livin' is easy."

ANSWER: "Summertime"

- 11. This man escaped from a prison cell in July 2015 by digging a tunnel through his shower area and riding a motorcycle to freedom. For 10 points each:
- [10] Name this man who was recaptured in the city of Los Mochis in January 2016 after fleeing through yet another escape tunnel into a sewer system. He was interviewed while on the run by Sean Penn.

ANSWER: Joaquin "El Chapo" Guzman (accept either underlined portion)

[10] El Chapo was the head of the Sinaloa organization of this type, which usually traffic in illegal substances like narcotics. The Gulf and the Los Zetas are other examples of these organizations.

ANSWER: cartel (prompt on drug gangs)

[10] Those aforementioned cartels mostly operate in this country where Guzman is now back in custody. Its President Enrique Pena Nieto has faced questions over the death of 43 students in Iguala in 2014.

ANSWER: Mexico

- 12. Mutations in the BRCA gene are linked to breast cancer and cancer of this organ. For 10 points each:
- [10] Name these organs where oogenesis occurs. This pair of organs function both as gonads and as endocrine glands, secreting hormones like estrogen and progesterone.

ANSWER: **ovaries** or **ovary**

[10] In mammals, these structures connect the ovaries to the uterus and allow eggs to travel during ovulation. An ectopic pregnancy occurs when implantation of a fertilized egg occurs in this structure.

ANSWER: **fallopian tube**s

[10] Gametogenesis occurs by this process, which yields four unique haploid cells. In contrast, mitosis produces two identical daughter cells.

ANSWER: meiosis

- 13. This African empire had its capital at Gao. For 10 points each:
- [10] Name this West African empire that dominated the region in the 15th and 16th centuries. Its rulers included Askia.

ANSWER: Songhai Empire (or Songhay Empire)

[10] This earlier West African empire was centered at Timbuktu. Its most famous ruler, Mansa Musa, went on an extravagant Hajj to Mecca in 1324.

ANSWER; Mali Empire

[10] The funding for the pilgrimage came from trading this commodity, used to preserve food. This mineral was sown into the ground after the sack of Carthage in 146 B.C.E.

ANSWER: <u>salt</u>

- 14. The title character of this novel tries to circumvent the oppressive influence of the Commander and Serena Joy. For 10 points each,
- [10] Name this novel about Offred that is set in the dystopian Republic of Gilead.

ANSWER: The **Handmaid's Tale**

[10] *The Handmaid's Tale* is the most famous novel by this author of *The Blind Assassin* and *Oryx and Crake*.

ANSWER: Margaret Atwood

[10] Margaret Atwood is from this country, also home to short story writer and recent Nobel Laureate Alice Munro.

ANSWER: Canada

- 15. Answer the following about the Jewish holiday of Sukkot, for 10 points each:
- [10] Sukkot is a festival of this activity, usually practiced in the autumn. Similar festivals are critical in pagan societies, and Thanksgiving originated as one of these festivals.

ANSWER: the <u>harvest</u> (accept common knowledge equivalents related to <u>harvesting food</u>)

[10] In commemoration of the tents they lived in while wandering in the desert for this many years, Jews build temporary structures called Sukkahs in which they are eat and sleep for eight days during Sukkot.

ANSWER: **forty**

[10] On Sukkot, Jews shake a lulav made from three types of leaf, as well as this fruit, which resembles a lemon. It has a point called a Pitam.

ANSWER: **Etrog** (prompt on citron)

- 16. Answer the following about ceramics, for 10 points each:
- [10] The inside of these ovens used to cook pottery often reach several thousand degrees. They are also used to cook bricks and other materials so that they do not lose form.

ANSWER: kiln

[10] This translucent white ceramic involves the heating of kaolin clay in a kiln. Josiah Wedgwood created a process to make this type of pottery in 1726 that is distinct from that used in China.

ANSWER: porcelain

[10] Designs on porcelain made with an ink-transfer processes were most often this color in designs such as Dutch Delftware. Indigo dye is used to make fabrics in a dark variety of this color.

ANSWER: blue

- 17. In this painting, a statue of a cherub holds a finger to its mouth in a shushing gesture, while a voyeur looks up the skirt of a woman wearing a pink dress. For 10 points each:
- [10] Identify this painting by Jean-Honore Fragonard, which depicts that woman riding on the titular conveyance.

ANSWER: The Swing

[10] Another painting by Fragonard, A Young Girl Reading, depicts the title figure wearing a dress of this color. Vermeer's Girl with a Pearl Earring wears a headscarf of blue and this color, whose complementary color is purple.

ANSWER: **yellow**

[10] Fragonard, along with Jean-Antoine Watteau, was an artist in this style, which primarily blossomed in France, was also known as Late Baroque, and emphasized extravagant ornamentation.

ANSWER: Rococo

- 18. One isotope of this element is naturally fissile, which means it can maintain a fission chain reaction. For 10 points each:
- [10] Name this element with symbol U, whose most common stable isotopes weigh 235 and 238.

ANSWER: uranium

[10] Uranium's outermost electron orbital is the 5 shell of this type. The elements corresponding to this orbital's "block" of the periodic table are known as lanthanides and actinides, and this orbital follows "d" in the filling order.

ANSWER: **f** orbital

[10] A gas containing uranium and this many fluoride atoms is used to separate isotopes of uranium via gaseous diffusion. Benzene contains this many carbons and this many hydrogens.

ANSWER: **six** (the gas is uranium hexafluoride)

19. The last phase of the French Wars of religion were named for three people that bore this name. For 10 points each:

[10] Give this first name, which was beared by The Duke of Navarre, the Duke of Guise, and the King of France at that time. A King of England with six wives also had this name.

ANSWER: Henry

[10] The Huguenots were French followers of this general branch of Christianity. Its theologians included John Calvin and it broke from the Pope's authority.

ANSWER: Protestantism (accept word forms like Protestants; prompt on Calvinism)

[10] Henry of Navarre later became Henry IV, and granted general freedom of conscience to the Huguenots with this declaration, which was later revoked by the Edict of Fontainebleau.

ANSWER: Edict of Nantes

20. Emily Dickinson wrote that this substance, "sifts from Leaden Sieves/ It powders all the Wood." For 10 points each:

[10] Name this type of precipitation that also occurs in the evening of a Robert Frost poem where the narrator hears "the sweep/Of easy wind and downy flake."

ANSWER: snow

[10] This American poet described the travails of a family caught in a snowstorm in his poem "Snow-Bound." He also described a woman who refused to lower the American flag in "Barbara Frietchie."

ANSWER: John Greenleaf Whittier

[10] Along with William Cullen Bryant, James Russell Lowell, and several others, Whittier was a member of a group of poets described by this adjective, which also titles some radio addresses by President Franklin Roosevelt.

ANSWER: Fireside Poets

TB. One character in this novel is born without a navel, and has a saintly personality despite being named Pilate. For 10 points each:

[10] Name this novel which sees multiple characters try to kill Milkman as he learns about his Biblically-named heritage.

ANSWER: Song of Solomon

[10] This female African-American author of *Song of Solomon* also wrote about Sethe's haunting by the ghost of her daughter in *Beloved*.

ANSWER: Toni Morrison

[10] *Song of Solomon* ends with Milkman leaping towards a character named after this typically 6-stringed musical instrument that is most often played by strumming.

ANSWER: Guitar