

## **Buzzerfest VII: 15 Minutes to Wapner**

Edited by Chris Frankel

Packet by Maryland A (Adam Fine, Dan Greenstein, Guy Jordan, Sandeep Vaheesan)

### Tossups

1. The action takes place in Toledo, and the plot borrows elements from William Mulford's story *The Iron Shroud* as well as Charles Brockden Brown's *Edgar Huntly*. The central character is freed from one of the title impediments when the French capture the city, and the other after he smears food on the ropes that bind him to the table, allowing him to escape in the nick of time. FTP, identify this 1842 short story about the torture of a man brought before the Spanish Inquisition, by Edgar Allan Poe.

ANSWER: "The **Pit and the Pendulum**"

2. An essay he wrote critiquing J.L. Austin's theory on speech, entitled "Signature Event Context," resulted in a heated debate between himself and John Searle. When Cambridge awarded this man an honorary doctorate, W.V. Quine was among those who protested the decision, describing his work as a Dadaist gimmick on philosophy. A former philosophy professor at the Sorbonne, he is the author of such works as *Writing and Difference* and *Speech and Phenomena*. FTP, name this man who also wrote *Of Grammatology*, considered the founder of deconstructionism.

ANSWER: Jacques **Derrida**

3. First detected in 1979 in observing the "Twin Quasar," it is dependent on the warping of space-time and bending of light explained in Einstein's theory of general relativity. Arthur Eddington confirmed the theory behind this effect in 1919 during a solar eclipse. The effect, whose observation provides a way to measure the exact value of the Hubble Constant, sometimes creates Einstein's ring. FTP, name this effect where light from a distant light source is bent around a massive object between the source object and the observer the way the titular construct might.

ANSWER: **gravitational lensing**

4. In their earliest days conflict between Richard of Cornwall and Alfonso of Castile split this group. Membership was claimed by the ruler of Hesse-Kassel as late as the 19th century, though by the 17th century, Hapsburg hegemony had made their rights meaningless. Empowered by the 1356 Golden Bull of Rimini they originally consisted of the king of Bohemia, margrave of Brandenburg, archbishop of Trier, and four others. FTP, this is what group of Central European rulers responsible for the ascension of the successors of Otto the Great and Charlemagne?

ANSWER: **Holy Roman electors** (prompt on "electors") or **Kurfürsten**

5. In this work, a challenge to Kantian ethics through the question of whether one has an absolute duty to God serves as the second problema. This third problem tackles the issue of concealing one's religious faith and obligations from other people, and the first one argues that duty to God can cause a "teleological suspension of the ethical," such as in the case of the biblical story this book discusses. Written under the name Johannes de Silentio, FTP, what is this Soren Kierkegaard work whose title alludes to the emotions likely felt by Abraham during the sacrifice of Isaac?

ANSWER: **Fear and Trembling**

6. Located just above the superior colliculus, this organ contains deposits of acervuli, or calcified material that was once notable for its ability to be detected in plain X-ray diagrams. A small percentage of its cells are star-shaped glial cells called astrocytes, but the rest produce its major hormone, with the aid of the neurotransmitter serotonin, and thus make this organ a regulator of the biological clock in humans. FTP, identify this small, cone-shaped gland in the brain whose primary function is the production of melatonin.

ANSWER: **pineal** gland

7. In *The Eumenides*, Athena compares Orestes with this man as an emphatic reminder of his blood guilt. The son of Phlegyas, he invited his father-in-law Deionus to his land but then promptly threw him into a pit of burning coals. Out of pity, Zeus invited him to Mount Olympus to help him purify his sins, but this

husband of Dia ended up screwing a cloud, thinking it was Hera, whom he earlier had tried to rape. FTP, name this father of the race of centaurs, condemned in Tartarus to revolve perpetually on a fiery wheel.

ANSWER: **Ixion**

8. This small empire controlled an area along the coast, between the Chincha and Acari Valleys, and its capital, Cahuachi, was located 31 miles inland along the south bank of its namesake river. Lasting from about 200 BCE to 600 CE, it had its members practice mummification by wrapping bodies tightly in cloth and burying them under a roof of logs. FTP, identify this ancient civilization in Peru known for building large pictograms in the desert that were only visible from the sky.

ANSWER: **Nazca**

9. At a governor's ball, the two main characters of this novel discuss their attraction to a widowed duchess, with one of them declaring she would be "perfect for the dissecting table." That character is rejected by Anna Odintsova, while his friend ends up marrying Katya. Intergenerational conflict appears in the form of a series of arguments and a duel between Pavel Petrovich, the uncle of Arkady, and Arkady's headstrong friend from college. FTP, identify this novel that features the Nihilist Bazarov, the masterpiece of Ivan Turgenev.

ANSWER: **Fathers and Sons** or **Ottsy I Deti**

10. Mathematically speaking, it establishes that the temperature function defines an equivalence relation on the state space of thermodynamical systems, since reflexivity and symmetry of the statement "is in equilibrium with" is trivial. The most profound implication of this law is to allow the construction of thermometers. FTP, what is this law of thermodynamics that states if A and B are separately in equilibrium with C, then A and B must be in equilibrium with one another?

ANSWER: **zeroth** law of thermodynamics

11. The two major elements of their worshipping practices are *Devekus*, a continuous personal bond with God, and *Hislahavus*, a state of spiritual ecstasy achieved by such a bond and often reflected by their heavy use of music and dancing in prayer. The group originally developed as a populist reaction to the false prophecies of Jacob Frank and Shabbetai Zevi, as well as religious persecution in Ukraine and Poland, and was founded by Baal Shem Tov. FTP, what is this ultra-orthodox sect of Jews known for their customary black dress and large population base in the New York City area?

ANSWER: **Hasidism** or **Hasidic** Jews

12. Two contrasting translations of his poetry are Burton Watson's *Selected Poems*, which sought to preserve the parallelisms in his work, and Kenneth Rexroth's version, which instead tried to make his poems more palatable to Western readers. Briefly held as a prisoner by rebels in Chang-an as a result of his support for the government, he wrote such works as "Spring Night in the Imperial Chancellery" and his most well-known composition, "The Song of the Wagons." FTP, name this Tang Dynasty poet whose work tends to be distant, intellectual, and moral, unlike the more sensual verse of his contemporary, Li Po.

ANSWER: **Tu Fu** or **Du Fu**

13. Article IV ordered an immediate removal of troops from the Kars, Batum, and Erdehan districts, and Article VI applied similar order for the Aaland Islands and other regions. This treaty, which was undone by the Treaty of Rapallo, also recognized the independence of Persia and Afghanistan, ordered the removal of mines from the Black and Baltic Seas, and declared an end to hostilities between the main country and the Quadruple Alliance and Ukraine. FTP, name this treaty, signed in Belarus, which ended Russia's involvement in World War I.

ANSWER: Treaty of **Brest-Litovsk**

14. The name of this effect comes from the namesake plant of the Western Electric Company, which served as a reference point in analyzing the social dynamics of groups in a work setting. The associated study found that the aptitudes of workers were imperfect predictors of job performance, and informal organization and work-group norms affect productivity. FTP, name this phenomenon by which participants in a study change their behavior because they know they are being studied, which shares its name with the author of *The House of the Seven Gables*.

ANSWER: Hawthorne effect

15. The inspiration for this character can be found in the role played by Lau Kar-Wing in *Master of the Flying Guillotine*, which involved in the use of blackface. In his ending in the Alpha 2 edition of the series he appears in, we find that he has wife named Sally, who can be called on to cheer him on by using a secret code in the PlayStation version of Alpha 3. In his victory ending in the game he first appears in, he returns home and tells his young son of his fighting exploits from his past life, which were aided by his extending limbs and Yoga Flame. FTP, name this Indian mystic from Street Fighter series.

ANSWER: Dhalsim

16. The title character and central figure clutches a book in her left hand, holding it against the blue fabric that covers her lower half and contrasts with her bright red robe. Saint Francis, holding a cross on the left, and Saint John the Evangelist, clad in red and holding a book on the right, flank the title character. The piece takes its title from Vasari's misidentification of two carvings on the pedestal on which the virgin and child stand, which depict a pair of beasts with wings. FTP, name this 1517 painting that actually features two sphinxes, the masterpiece of Andrea del Sarto.

ANSWER: Madonna of the Harpies

17. Educated at Balliol College, he won the Newdigate Prize in 1843 for the poem "Cromwell." From 1851 to 1886, he served as an inspector of schools and frequently went to Europe to examine different educational systems. He was highly critical of Victorian materialism, and called for a revival of artistic sensibilities in *Culture and Anarchy*. Author of an elegy written for his friend Arthur Hugh Clough and entitled "Thyrsis," FTP, who is this poet best remembered for "The Scholar Gipsy" and "Dover Beach?"

ANSWER: Matthew Arnold

18. Allegedly its five acts were planned out in only 15 minutes by a then-inebriated friend of the composer, Konstantin Bakhturin. Highlights include Farlaf's rondo celebrating his treacherous alliance with the evil sorceress Naina; "Scene with the Head," in which the hero encounters a giant disembodied head that blows powerful gusts of wind, and a series of three Oriental dances performed in the garden of the evil dwarf Chernomor, whose part is a silent role. Featuring a libretto by Valerian Shirkov and based on a poem by Alexander Pushkin, FTP, what is this Mikhail Glinka opera about a pair of fairy tale lovers?

ANSWER: Ruslan and Ludmilla

19. One of its branches started up in order to counter the popularity of Carl Schurz in the western states by financing the publication of newspapers favorable to the president. William McGee and John Joyce were among the 238 indicted for involvement, as was General John McDonald, leader of the St. Louis branch. Over \$3 million in lost taxes was recovered, largely due to the efforts of Treasury Secretary Benjamin Bristow, though a pardon prevented the conviction of presidential secretary Orville Babcock. FTP, name this Grant administration scandal involving fraud on excise taxes on liquor.

ANSWER: Whiskey Ring

20. Later in the nineteenth century, this law was useful in clarifying atomic weights and formulas due to the atomic heat of all elements being about the same. Carbon is a notable exception to this law that fails at low temperatures because electron specific heat becomes predominant; in that case, the Debye model is used instead. FTP, name this law that establishes a good approximation for the expression of the specific heat capacity of a crystal based on lattice vibrations, named for a pair of French scientists.

ANSWER: law of Dulong and Petit

21. Now found at the head of the Daru staircase, it prompted a 2001 website to be posted demanding its return. In 1909 Futurist Filippo Marinetti asserted that "a roaring motor car which seems to run on machine-gun fire, is more beautiful" than this ancient sculpture. Found in 1863 by Charles Champoiseau, it had one of its hands found in 1950 near the same site. Commissioned, according to a partial inscription, to commemorate a naval triumph by Rhodes this is, FTP, what anonymously completed sculpture, found at Samothrace and depicting the goddess Nike?

ANSWER: Winged Victory of Samothrace

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### **Bonuses**

1. Identify the following notable scientific experiments FTSP.

(10) The two namesakes of this experiment shot a beam of silver atoms through an inhomogeneous magnetic field, separating it in two and showing space quantization.

ANSWER: **Stern-Gerlach** experiment

(5) Robert Millikan discovered the charge of the electron and showed that charge can only exist in whole units in this 1923 experiment.

ANSWER: **Oil-drop** experiment

(15) In this 1951 experiment, the discoverer of deuterium teamed up with a graduate student to produce amino acids by sending electrical charges through a glass tube containing methane, hydrogen, ammonia, and water vapor.

ANSWER: **Miller-Urey** experiment

2. Identify these works with related themes, FTPE.

(10) The opening notes of this George Gershwin work written for Paul Whiteman's Orchestra were inspired by the sound of a train leaving a station.

ANSWER: **Rhapsody in Blue**

(10) This 1844 painting subtitled "The Great Western Railway" by J.M.W. Turner features a rabbit dashing out of the way of an oncoming train.

ANSWER: **Rain, Steam, and Speed**

(10) This 1923 composition by Arthur Honegger makes use of onomatopoeia to evoke a journey by train. The three-digit number in the title refers to the arrangement of the wheels on a locomotive.

ANSWER: **Pacific 231**

3. Name these schools from ancient Greek philosophy, FTPE.

(10) Antisthenes founded this school that decried worldly luxuries and advocated living simply and virtually. Diogenes of Sinope was another prominent member.

ANSWER: **Cynics**

(10) Parmenides, the student of Xenophanes, was the primary figure in this school that argued that reality was an unchanging and indivisible whole.

ANSWER: **Eleatic** School

(10) Aristippus was the founder of this school of relativist and hedonistic thinkers who argued that virtue is only a means to achieving pleasure.

ANSWER: **Cyrenaic** School

4. Identify the following Charles Dickens novels from clues FTPE.

(10) Pip realizes the value of friendship and family after sinking in London high society, while the bitter Miss Havisham has not recovered from being jilted on the altar.

ANSWER: **Great Expectations**

(10) Dickens denounced utilitarianism in this work that contrasts the innocence of textile worker Stephen Blackpool with the callousness of industrialist Josiah Bounderby.

ANSWER: **Hard Times**

(10) The title character is swept up in the frenzy of the anti-Catholic Gordon Riots. The love affair between the Catholic Emma Haredeale and the Anglican Edward Chester forms the novel's most important subplot.

ANSWER: **Barnaby Rudge**

5. Identify the following agreements surrounding World War II for ten points each.

(10) In August 1941, Roosevelt and Churchill signed this eight-point document on a warship off of Newfoundland. It espoused a vision for the post-war world that incorporated freedom, sovereignty and association among nations.

ANSWER: Atlantic Charter

(10) These 1944 and 1945 documents, formulated and signed at the namesake New Hampshire location, established the World Bank and International Monetary Fund.

ANSWER: Bretton Woods Agreements

(10) Negotiations on the formation of the United Nations were held at this Washington mansion starting in August 1944.

ANSWER: Dumbarton Oaks Conference

6. FTPE, answer the following questions about a statue of an angel standing over a Spanish mystic.

(10) Name this sculptural group by Gianlorenzo Bernini that shows a native of Avila being repeatedly pierced with an arrow.

ANSWER: The Ecstasy of Saint Theresa

(10) Name the chapel that Bernini retrofitted with a special window that allowed natural light to bathe his work.

ANSWER: Cornaro Chapel

(10) The statue and the Cornaro Chapel are located in this Roman church of Santa Maria della Vittoria, in which Italian city?

ANSWER: Rome

7. Identify these atomic models, FTPE.

(10) In this model by J.J. Thomson, the atom is envisioned as a group of electrons surrounded by a sea of positive charge. This model was disproved with the discovery of the nucleus.

ANSWER: plum pudding model

(10) This model oversimplifies the atom but is useful pedagogically. The atom is described as a small, dense positive nucleus surrounded by electrons orbiting at different levels, similar to a solar system.

ANSWER: Bohr model

(10) G.N. Lewis and Irving Langmuir parlayed their octet rule into this atomic model, in which the valence electrons of an atom are aligned at the vertices of the eponymous shape.

ANSWER: cubical atom model (accept variants mentioning cube)

8. It's another national epic bonus! FTSNOP:

(5) This work was compiled in the mid-nineteenth century by Elias Lonnrot, a Finnish physician.

ANSWER: Kalevala

(10) This reckless hero and companion of Vainamoinen gets chopped up into pieces by a cowherd, but is brought back to life with the help of his mother.

ANSWER: Lemminkäinen

(15) The aforementioned incident occurred during Lemminkäinen's quest to go to the black waters of the underworld and gain mastery over death by killing this mythical bird.

ANSWER: Swan of Tuonela (prompt on just "swan")

9. Identify these related literary things FTPE.

(10) This German author of plays such as *Baal* and *The Caucasian Chalk Circle* was a proponent of the idea of "Epic Theatre."

ANSWER: Bertolt Brecht

(10) This Brecht play features Macheath, London's greatest criminal, and his secret marriage to his sweetheart in a stable.

ANSWER: The Three-Penny Opera

(10) This African author's *Opera Wonyosi* is an adaptation of Brecht's *Three-Penny Opera*. He also wrote *A Dance of the Forests*.

ANSWER: Wole Soyinka

10. It was caused by *Phytophthora infestans*, and indirectly resulted in around 750,000 deaths. FTPE:

(10) Name this environmental disaster that occurred in the UK from 1846-1849.

ANSWER: Irish potato famine (accept equivalents)

(10) The potato famine raised heated debates over the status of these agricultural tariffs. Earlier challenged by David Ricardo, they were repealed in January 1846.



ANSWER: Corn Laws

(10) This Tory Prime Minister broke with his party over the dispute over bills to repeal the Corn Laws and provide food subsidies for the Irish. He resigned in 1846 and was replaced by John Russell.

ANSWER: Robert Peel

11. It held that human beings were not tainted by original sin, and they had the opportunity to choose good over evil. FTPE:

(10) Identify this heresy named after a British monk who taught in Italy.

ANSWER: Pelagianism (accept Pelagius)

(10) After Alaric's sack of Rome in 410, Pelagius fled to Carthage, bringing him into direct conflict with this bishop of Hippo who condemned him.

ANSWER: Saint Augustine

(10) Pelagius criticized Saint Augustine by suggesting that his teachings amounted to the introduction of this dualistic philosophical system into Christianity. Its namesake founder was killed in 275 CE.

ANSWER: Manichaeism (or Manichaeism)

12. Name these locations from American plays, FTPE.

(10) A stage manager interacts with the audience and directs the story of George Gibbs and Emily Webb, who grow up together and get married in this sleepy New Hampshire town.

ANSWER: Grover's Corners

(10) None of the play's action takes place here, but we find out about it when Blanche Du Bois reveals to Stella that her ineptitude caused her to lose this family estate in Mississippi.

ANSWER: Bel Reve

(10) In an Edward Albee play, Elizabeth, the lady from this titular Iowa town, arrives and claims to be Jo's mother, though she really may be the angel of death.

ANSWER: Dubuque

13. Answer these questions concerning parts of a tree FTPE.

(10) Bark is made up of this embryonic "cork" tissue found in vascular plants.

ANSWER: cork cambium

(10) Wood is actually the secondary form of this water-conducting tissue.

ANSWER: xylem

(10) A tree's leaves contain these openings or pores that allow for the exchange of gases such as carbon dioxide and water vapor.

ANSWER: stomata

14. Answer the following about an American victory, FTPE.

(10) Fought east of Santiago, Cuba, this 1898 battle was remembered for its famous charge by the Rough Riders that began with Kettle Hill.

ANSWER: Battle of San Juan Hill

(10) This former physician and victorious commander at the Battle of Las Guasimas was the colonel who commanded the Rough Riders.

ANSWER: Leonard Wood

(10) A key contributor to the victory at San Juan Hill, was this group of black soldiers, who comprised the 9th and 10th Regulars.

ANSWER: buffalo soldiers

15. FTPE, name these Mozart serenades.

(10) The theme from the first movement of this 1787 string serenade in G Major, K525, has become one of the most recognizable themes in classical music. Its English title also was used as the name of a Stephen Sondheim musical.

ANSWER: Eine Kleine Nachtmusik or *A Little Night Music* or *Serenade #13*

(10) The sixth movement of this serenade in D Major features a solo from the titular instrument, a valveless brass instrument with a sound similar to that of a cornet and often used by mail carriers.

ANSWER: Posthorn Serenade or *Serenade #9*

(10) This sixth serenade in D major consists of only three short movements: a march with a timpani solo, a minuet, and a rondo. As its title suggests, it was written for an evening event.

ANSWER: Serenata Notturna or Night Serenade

16. Answer these questions about a certain novelist, FTPE.

(10) Inspired by Balzac's *Human Comedy*, he wrote *Les Rougon-Macquart*, a cycle of 20 novels, that relates the history of a single family during the Second Republic and Second Empire.

ANSWER: Emile Zola

(10) In this Zola novel, the titular whore manipulates Steiner, George, and Muffat, then catches smallpox, which destroys her looks and ultimately kills her.

ANSWER: Nana

(10) This novel looks at the plight of French coal miners through the eyes of Etienne Lantier and argues that only socialism can remedy the inequities associated with capitalism.

ANSWER: Germinal

17. 18. Identify the following abstract data types, FTPE:

(10) A collection of items in which only the most recently added item may be removed.

ANSWER: stack

(10) A set of items in which only the earliest added item may be accessed.

ANSWER: queue

(10) A complete binary tree where every node has a key more extreme (greater or less) than or equal to the key of its parent.

ANSWER: heap

18. Answer these questions about a Japanese restoration, FTPE.

(10) Led by Go-Daigo, who sought to become emperor, this restoration period began in 1333 after the fall of the Kamakura Shogunate and ended in 1336.

ANSWER: Kemmu Restoration

(10) The Kemmu Restoration was overthrown when Takauji, ushering in the beginning of this shogunate and the Muromachi period.

ANSWER: Ashikaga shogunate

(10) The Muromachi period was named after a region in this city, which served as the capital under the Ashikaga.

ANSWER: Kyoto

19. Name these geographical features one would have encountered on the Oregon Trail, FTPE.

(10) About 50 miles east of Fort Bridger, the trail crosses this colorfully-named river that flows south through Flaming Gorge and eventually flows into the Colorado River.

ANSWER: Green River

(10) After leaving Wyoming, settlers would head to Fort Hall and follow the course of this river to Fort Boise.

ANSWER: Snake River

(10) This group of mountains in northeastern Oregon, a part of the Columbia Plateau, was the last mountain range encountered on the trail before the Cascades.

ANSWER: Blue Mountains

20. Identify the following about international trade for ten points each.

(10) This Ricardo principle states that in a system of two countries and two goods, it is beneficial for the countries to trade rather than produce both goods themselves because the relative costs of producing the goods are different in each country.

ANSWER: comparative advantage

(10) This theory of international trade involves two countries, each endowed with two homogeneous factors, labor and capital, and concludes that comparative advantage is based on relative natural resource endowments.

ANSWER: Heckscher-Ohlin theory

(10) This contradiction of the Heckscher-Ohlin theory states that while the U.S. has an abundance of capital, its exports were labor intensive while its inputs were capital intensive.

ANSWER: Leontief paradox