

2001 Elvis Aaron Presley Memorial (?) Invitational Tournament
Packet by Wisconsin A
[Adam Engelhart, Joe Gratz, Jordan Zweck, Jeff Hegedus]

TOSSUPS

1. This song was used at the Fraunhofer Institute while researchers refined the MP3 standard. The scientists felt their compression algorithm would be complete if it could properly reproduce the nuances in this female a cappella performance. It became more famous in an unauthorized version by techno group DNA. FTP, name this song, whose title refers to the same New York restaurant seen in Seinfeld, sung by Suzanne Vega.

Tom's Diner

2. In the mitochondria, the process begins when FADH and NADH split hydrogen, and the NADH gives up a pair of the signature particles, which are given to ubiquinone, itself is later oxidized. The buildup of H⁺ and the signature particles results in a proton gradient. Finally, oxygen accepts the electrons and water is produced. FTP, name this biological process which results in the production of ATP without excess production of heat, named in part for those signature particles, which are negatively-charged leptons.

the _electron-transport chain_

3. It was resoundingly repealed in 1970, though it had passed the House of Representatives 414 to nil and the Senate 88 to 2 when it was adopted. Part of its inspiration – the August 2nd attack – was verified in 1995, though the supposed multiple attacks against the Maddox and C. Turner Joy that brought it to the floor were not confirmed by Vo Nguyen Giap (noo-yen JOP). FTP, name this resolution put forth by the Johnson administration, based on purported August, 1964 attacks on U.S. ships off the coast of Vietnam.

The _Gulf of Tonkin_ or _Tonkin Gulf_ Resolution (accept: _Gulf of Tonkin_ or _Tonkin Gulf_)

4. Though this state's highest point, 442-foot-high Elbright Road, is nearly 100 feet higher than Florida's, this state does have the lowest average elevation at 60 feet. It has three counties (New Castle, Kent, and Sussex), and three dates on its seal (1793, 1847, and 1907), though not 1776, when Caesar Rodney made his famous ride from this state to Philadelphia. FTP, name this state, whose laissez-faire corporate laws have drawn large corporations such as the chemical companies around its largest city, Wilmington.

Delaware

5. Important components of the set include a doctor's anatomy chart and a statue of an angel. Minor characters include Mrs. Bassett – one of a group that meets to discuss intellectual matters they don't really understand – Gonzalez, and the temptress Rosa. When the son of the town's doctor returns, the repressed minister's daughter who was his childhood friend is forced to acknowledge her sexual feelings for him. FTP, name this Tennessee Williams play, where the fourth of July celebration takes place in the title season.

Summer and Smoke

6. The Reduced Shakespeare Company embodies one of the key ideals of this movement, which sought to compress all of the great works of literature into a short performance. Their founding manifesto said, "We want to glorify war - the only cure for the world - militarism, patriotism, the destructive gesture of the anarchists, the beautiful ideas which kill, and contempt for woman." Thus, it is no great surprise that this movement fell in with the Fascists. FTP, name this Italian movement with followers such as Umberto Boccioni and Filippo Tommaso Marinetti.

Futurism

7. He got his start as a junior at Worcester [WOO-ster] Polytechnic Institute when he invented the insulin pump. He went on to invent such things as a stair-climbing wheelchair and a dialysis machine. But, as current president and owner of Manchester, New Hampshire-based DEKA Research, it is his most recent invention which has made him

famous. FTP name this inventor of the machine that might be a scooter of some kind, but is known, in January 2001, only as "It" or "Ginger."

Dean _Kamen_

8. The measurement of the life of a nucleus is actually based on the probability of this occurring. This effect cannot happen in the Particle in a Box hypothesis because the potential energy of the sides of the well is infinite. However, in real cases such as alpha decay where the energy of the particle is very close to the binding energy that defines the top of the potential well, the particle actually has a nonzero probability of spontaneously appearing outside the atom. FTP, what is this quantum mechanical effect where particles effectively pass through potential barriers?

tunneling

9. Its main opponent, secretary of the treasury Benjamin Bristow, prosecuted many, including personal secretary Orville E. Babcock. Babcock was acquitted following testimony by his employer, Ulysses S. Grant. Bristow was more successful with other prosecutions against this enterprise, which worked out of Milwaukee, St. Louis, and Chicago, and was rumored to support the Republican Party. FTP, name this group, who until 1875 conspired to defraud the United States government of taxes on liquor production.

the _Whiskey Ring_

10. A cover of this song by Hubert Parry was performed by Emerson, Lake, and Palmer. However, you'd be more likely to hear the song on the last night of the Proms than on a rock album. Lyrics include a "chariot of fire" and "England's mountains green," while another verse asks if the title city – actually thousands of miles from England – was "builded here, among these dark satanic mills." FTP, name this patriotic English song, a setting of a poem by William Blake, whose title city might seem more appropriate in the Middle East.

Jerusalem

11. Originally published in 9 volumes, it begins with the main character's conception, which he says was tarnished when his mother broke his father's concentration. The author uses unique techniques, such as leaving one page blank for the reader to write his own description of Widow Wadman. We also hear about Yorick, Uncle Toby, and opinions on John Locke. FTP, name this novel about the life and opinions of its title gentleman, by Laurence Sterne.

The Life and Opinions of _Tristram Shandy_, Gentleman

12. It is the day on which the Betar stronghold fell, the Jews were expelled from Spain in 1492, and the Nazis began deporting Jews from the Warsaw Ghetto. It is the culmination of a three week period of mourning, as well as the date when Moses broke the first tables of the law upon seeing the Golden Calf. FTP, name Jewish holy day best known as the date of the destruction of both the first and the second temples.

Tisha B'Av or the _Ninth of Av_

13. Number 37 is used for time. Number 88 is used for Kerberos. Number 110 is used for the Post Office Protocol, and number 70 is used for Gopher. Number 80 is used for HTTP. FTP, what is this computer networking term, analogous with a docking location for watercraft?

Port

14. Born into a well-to-do Midwestern family which likes to say they are royalty even though his ancestor was really a man who dodged the Civil War, he says that he is "one of the few honest people [he] ha[s] ever known." He graduated from Yale in 1915 and in 1922 moved east, partly to avoid rumors of an engagement, and also to enter the bond business, and soon met up with an old classmate and a distant relative. FTP, name this F. Scott Fitzgerald character, neighbor of Jay Gatsby.

Nick or _Carraway_ (accept either name)

15. In the prologue, a Ringmaster brings out a snake sharing the name of the title character. Many of the characters are known not by their names, but by their jobs, like the Athlete, the Groom, and the Painter. Those who die as a result of being in a relationship with the main character include Dr. Goll, Dr. Schoen, and Alva. After being tried for murder and escaping, she becomes a prostitute. FTP, name this 12 tone opera by Alban Berg which ends with Jack the Ripper killing the title woman.

Lulu

16. He was ambassador to Yugoslavia from 1961-63 and to the Soviet Union in 1952, before being recalled because of comments made about the isolation of diplomats and about Soviet propaganda. In the late 1950s, he proposed the policy of "disengagement" in areas of conflict with the Soviet Union, a revision of the ideas he had promoted in a June, 1947 issue of Foreign Affairs magazine under the name "X." FTP, name this man who helped formulate the Truman administration's policy of Communist "containment."

George _Kennan_

17. Its primary exports are crude oil, timber products, and manganese. President Omar Bongo, in office since 1967, is Africa's second-longest serving head of state. It has the highest per capita GDP in Africa – due to its considerable oil and, especially, manganese reserves – but income inequality is a problem. Its major cities include Port-Gentil [jahn-teel] and Franceville. FTP, name this West African country, with capital at Libreville.

Gabon or _Gabonese Republic_ or _Republique Gabonaise_

18. In Asia, it is cultivated for its tubers and hemp-like fibers. It is used as a cover crop, for pasturage and hay, and for controlling soil erosion. A plant of the Leguminosae family, native to Japan, it was introduced to the United States circa 1876. FTP, name this plant, used as a decorative vine in the South but now escaped from cultivation to become a noxious weed.

kudzu

19. In 1594, he wrote a letter to James the Sixth in which he advocated the purging of Catholics. But even though his Plaine Discovery of the Whole Revelation of St. John occupies a prominent place in his country's ecclesiastical history, he is better known for work discussed in Two Books of Numbering by Rods and the "Description" and "Construction" of the "Marvelous Canon" of his most famous invention. FTP, name this Scotsman, who revolutionized computation with his "bones," an implementation of calculations using logarithms.

John _Napier_

20. None of the main characters in this series appear in multiple games, but there are recurring characters, such as Cid and the moogles. The first three were made for the original NES, the next three for the Super NES, and the remainder for Sony Playstation. However, many Americans wouldn't know that, as numbers 2, 3, and 5 were not originally released in the U.S. FTP, name this series of role-playing games, made by SquareSoft and featuring main characters such as Butz, Terra, or Zidane.

Final Fantasy

21. Born in Algeria in 1930, his family fled Nazi occupation there, and he ended up in Paris. He is by training a historian of philosophy, and his first published work was, in fact, a translation of a work on geometry by Edmund Husserl. In Plato's Pharmacy, he takes apart Plato's Phaedrus. One of his important ideas was that of "differance" [dif-uh-RAWNZ]. FTP, name this French thinker, author of Writing and Difference and Of Grammatology, who is one of the key proponents of deconstruction.

Jacques _Derrida_ (dare-ree-DAH)

22. Though the Bungei jidai (BOON-gay gee-DIE) group, which this writer co-founded with Yokomitsu, was said to have derived much from Dadaism, Expressionism and Cubism, this writer's works actually owe much to the renga (linked verse) of the 15th Century. The formless flow of the renga can be seen in the novels of this man, who committed suicide in 1972 shortly after the suicide of his close friend, Mishima Yukio. FTP, name this author of *Thousand Cranes*, *Snow Country*, and *The Sound of the Mountain*.

Kawabata Yasunari (accept names in either order, as long as _Kawabata_ is given)

=====END=====

23. The key factor in this conflict was an air force equipped by France. Prompted in part by Egypt's closing of the straits of Tiran, by the end the victor controlled a total land area four times what it had after its 1949 independence war. FTP name this nearly week-long 1967 war in which Israel gained among other things, the Gaza Strip and the Golan Heights.

the _Six Day_ War

24. Although rarely thought of in these terms, it is actually just a special case of Gauss' Law for electricity. Instead of any number of charges, a single charge Q is considered, and instead of any closed surface, a sphere of radius R is used. The area is thus four pi R squared, and the electric flux is epsilon-naught times Q which is the exact statement of this law. In this scenario, the second charge – the test charge – is assumed. FTP, name this law which describes the inverse-square dependence of the force between two point charges.

Coulomb's Law

25. Part of the description of the painting, revised by the artist, reads, "We see a married couple carrying a baby, and, at the extreme right, appears a scandalously hieratic-looking couple, a young dandy with a rather excessively elegant lady on his arm who has a yellow, purple, and ultramarine monkey on a leash." FTP, name this painting, depicting a pleasant Paris afternoon by the river, a pointillist masterpiece of Georges Seurat.

A Sunday Afternoon on the Island of the _Grande Jatte_ or Un dimanche après-midi à l'Ile de la _Grande Jatte_

26. Some regions in Britain in the 1770's had a population larger than the total population of the American colonies yet they did not complain about taxation without representation even though they did not have any representatives in Parliament. This is because members of parliament did not actually represent their hometowns, but rather every member represented the interests of the entire Empire. FTP, name this principle, which was Britain's reply to the colonists' complaints.

virtual representation

27. In an experiment conducted by Lord Rayleigh, a volume of deoxygenated air weighed 0.46 % more than the same volume of chemically prepared nitrogen. He thus concluded that the gas obtained from air contained a small amount of a gas heavier than nitrogen. This gas was later found to make up 0.94 % of the atmosphere, and have an atomic weight of 39.948 a.m.u. FTP, name this noble gas, used in electric light bulbs and fluorescent tubes, having atomic number 18.

Argon

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BONUSES

1. Answer the following questions concerning Russian literature. Fifteen points if you don't need the author, 10 points if you do.

(15) For 15 points (F15P): This is the tale of Cincinnatus C. and his days in prison. His in-laws try to bring furniture into the cell and the executioner pretends to be a prisoner. In the end, he wills all the people out of existence.

For 10 points (FTP): Vladimir Nabokov

Invitation to a Beheading

(15) F15P: In this novel, the devil comes to Moscow along with a naked witch and a talking cat. One of the title characters is writing a novel about Pontius Pilate that is incorporated into the novel itself. The other titular character is so in love with him she will go to hell for him.

FTP: Mikhail Bulgakov

The Master and Margarita or Master i Margarita

2. Answer these related art questions, for the stated number of points (FTSNP):

(10) First, FTP, name this painting: Seated around the table are 4 men. The 2 on the left lean in closely, and the one on the right seems confused. Seated at the center is Christ, illuminated by a bright beam of light. In a later version of the painting the scene is changed to include an elderly woman.

Supper at Emmaus

(5) For five points (FFP): Who painted Supper at Emmaus?

Michelangelo Merisi Caravaggio

(15) F15P: In this painting by Caravaggio, the virgin crouches while above her hovers an angel wearing bright white. His face is hidden and his dark wings blend into the dark background. His hand is poised above the woman's head with one finger pointing out.

The Annunciation

3. Answer the following questions about the history of Japan, FTPE... and no, none of the answers is Japan.

(10) Japan was first united in the fifth century under what court?

Yamato

(10) Which daimyo began the early modern unification of Japan in 1550?

Oda Nobunaga

(10) Under which emperor's Restoration did Japan dismantle the feudalist system in the 18th century?

Meiji Tenno (accept: _Mutsuhito_)

4. Identify the following concerning the work of Kurt Godel.

(10) Hilbert's first open problem of mathematics focused on the status of this hypothesis. In 1940, Godel proved that it was consistent with ZF set theory and thus is generally excepted today. It states that there is no intermediate cardinality of sets which exists between the rational numbers and the real numbers.

the _continuum hypothesis_

(10) Today, Godel's name is synonymous with this theorem which he proved in 1931 which says that within any consistant, axiomitized system strong enough for arithmetic there are statements which are unprovable whose negations are also unprovable.

Godel's First _Incompleteness Theorem_

(10) Godel's Incompleteness Theorem figures prominently in what logician's magnum opus, _Godel, Escher, Bach: an Eternal Golden Braid_?

Douglas _Hofstadter_

5. There's a certain game called "The Man Who Melted Jack Dann." It's very simple--players scour their shelves for books or recordings with titles that, when followed or preceded by their creators' names, become phrases. For example, "Help the Beatles," "The Machine Stops E. M. Forster," and "A Time to Kill John Grisham" are all valid answers.

With this in mind, identify the following works and their creators FTPE. For example, if I said "Mumble the acronym for the stage of sleep in which dreams occur," you would say, "Murmur R. E. M.":

(10) The hep version of an influential jazz musician enters the world.

Birth Of the Cool Miles Davis

(10) Pay no attention to the eventual goal of most Buddhists.

Nevermind Nirvana

(10) A brace of siblings stab noted hair stylist Sassoon.

Two Sisters Gore Vidal

6. Identify the following concerning various pagan religions FTPE:

(10) This church publishes the magazine _Green Egg: a Journal of the Awakening Earth_, and takes inspiration from sources including Robert A. Heinlein's novel _Stranger In a Strange Land_.

The _Church of All Worlds_ (accept _CAW_)

(10) The word "pagan" is derived from the Latin "paganus," meaning one who lives where?

the _country_ or a _rural area_ (accept equivalents)

(10) The city of Pagan (pah-GAHN) was a former capital of a country that has this as its predominant religion.

Theravada Buddhism (prompt on: _Buddhism_) [note: it is in Myanmar]

7. Identify the following types of matrices from descriptions FTPE:

(10) It is equal to the transpose of its conjugate.

Hermitian

(10) It can be viewed as the derivative of a vector field.

Jacobian

(10) It can be viewed as the second derivative of a scalar field.

Hessian

8. Identify the following economics terms FTP each:

(10) This two word Latin phrase refers to the practice of isolating one variable and allowing nothing else to change.

ceteris paribus

(10) Contrary to normative economics, which focuses on how things ought to be, this branch focuses on how things actually are.

positive economics

(10) This curve expresses the different ways in which a society can spend its resources on multiple goods at the same time.

production-possibilities curve

9. Identify the following US Supreme court decisions, FTPE.

(10) It established the "clear and present danger" test for freedom of speech.

Schenck v. U.S

(10) It specified that a statute is allowable only if it has a secular purpose, if its primary effect is to neither advance nor inhibit religion, and if it does not excessively entangle government with religion.

Lemon v. Kurtzman

(10) It established a three-part definition of obscenity, including the famous Serious Literary, Artistic, Political, or Scientific value, or SLAPS, test.

Miller v. California

10. 30-20-10, name the record.

- (30) Released in 1967, its sleeve was the first to contain lyrics. The album took seven hundred hours to produce.
(20) The Peter Blake-designed cover featured Edgar Allen Poe, Oscar Wilde, and Albert Einstein, among others.
(10) This Beatles album includes the tracks "Getting Better," "Lovely Rita," and the title track, with reprise.

Sgt. Pepper's Lonely Hearts Club Band

11. Given a German city, give the state of which it is the capital, FTPE.

(10) Stuttgart

Baden-Wurttemberg (BAH-den VERT-tehm-berg)

(10) Munich

Bayern

(10) Hamburg

Hamburg

12. Answer these questions from Chinese history FTPE:

(10) In some encyclopedia's this dynasty is listed as ruling China from 202 BCE to 220 CE although other sources will have a slight hole in that time.

Han dynasty

(10) The hole is from 9 CE to 23 CE when this regent of China declared himself emperor and formed a new dynasty. He was eventually captured and killed by a group known as the red eyebrows.

Wang Ming or _Wang Mang_

(10) Believing that the Han dynasty's mandate from Heaven was ended and his mandate begun, Wang Mang declared the beginning of this short-lived dynasty.

Hsin or _Xin_

13. Answer these questions about the heart FTSNP:

(5) This is the name for the small upper chamber of the heart into which the blood first flows.

atrium or _auricle_

(10) This is the name for the several layers of muscle surrounding the heart.

myocardium

(15) This is the body's pacemaker. Located near the right atrium, it controls contraction of the atria.

sino-atrial or _S-A node_

14. Identify the works of Giuseppe Verdi, who died 100 years ago this January (2001), FTPE.

(10) Broadcast by the Met on the exact anniversary of Verdi's death, it is the story of Radames, Amneris, and an Ethiopian woman.

Aida

(10) Most major composers of choral music wrote one of these, and Verdi was no exception. Jesus is flogged in stanza 7, and in stanza 8 he dies. In Verdi's version there is no repetition of the text.

Stabat Mater

(10) In Jerusalem, the Israelites are attacked by the title character. However, he loses power to Abigaille, who is not really his daughter but the daughter of slaves. He recovers just in time to save his real daughter, Fenena.

Nabucco

15. Identify these poetic forms FTPE:

(10) It consists of 6 stanzas of 6 lines each. The final words of each line in the first stanza are used again, though in a different order, as the last words of each the lines of the next 5 stanzas. It ends with a 3-line stanza in which the 6 words are placed in the middle and at the end of each line.

Sestina

(10) A 7-line iambic pentameter stanza with rhyme scheme a-b-a-b-b-c-c, it was used famously by Chaucer and James I of Scotland.

rhyme royal

(10) A five line stanza developed by Adelaide Crapsey, the first and last lines have 2 syllables and the middle 3 lines have 4, 6, and 8 syllables.

cinquain [sin-CANE]

16. Answer the following questions about a January, 2001 earthquake, FTSNP:

(5) The western portion of which country was affected by the quake on 26 January, its Republic Day?

India

(10) The tremors were felt as far away as Uttar Pradesh, where pilgrims were celebrating which religious festival?

Kumbh Mela

(15) Which state in India was the epicenter of this earthquake?

Gujarat state

17. Answer the following questions policy in American history, FTPE.

(10) A speech before Congress in December 1823 suggested a policy of, among other things, the United States' non-interference in European affairs. What is this policy commonly called?

Monroe Doctrine

(10) The idea for the final form of the Monroe Doctrine did not originate with Monroe himself. Rather, it was the brainchild of what man, Monroe's secretary of state?

John _Q_ uincy _Adams_

(10) The concept of non-interference in European affairs did not really originate with Adams either. What 1797 speech first espoused the idea of isolationism?

Washington's farewell address (accept equivalents)

18. Friction is fun! State whether the following statements apply to static friction, kinetic friction, both, or neither, FTPE:

(10) Its magnitude is equal to the material constant μ (myoo) times the magnitude of the normal force.

kinetic [note: static friction is LESS THAN OR equal to μ , not just equal]

(10) Its direction is perpendicular to the direction of the normal force.

both

(10) The work it does is always negative.

kinetic [note: static friction, being static, does ZERO work, not negative]

19. FTPE, I'll give you the author's real name, you give me the pseudonym under which he or she wrote.

(10) William Sydney Porter

O. Henry

(10) Marie-Henri Beyle

Stendhal

(10) Hector Hugh Monroe

Saki

20. An oil spill made news recently, although fortunately it seems the effect on wildlife has been relatively minimal. Answer these questions about it, FTPE.

(10) The accident occurred near what group of islands?

Galapagos

(10) What is the name of the tanker that ran aground?

Jessica

(10) Who was the captain of this ship?

Tarquino Arevalo

21. Name the historical figure 30-20-10.

(30) In 1799 he joined the Directory but along with Napoleon, Fouche, and Talleyrand, helped organize the coup d'état which overthrew it. He was then made a provisional counsel and helped write the new constitution.

(20) Elected to the Estates General in 1789, he had a large role in writing the Declaration of the Rights of Man and of the Citizen

(10) He wrote the influential pamphlet, What Is the Third Estate?

(Abbe) Emmanuel-Joseph _Sieyes_

22. Sort the following Aegean islands from northernmost to southernmost, for five points each. They are [moderator: read slowly]: Lesbos, Cyclades, Thasos, Limnos, Khios, and Samothrace.

(in order, top to bottom)

Thasos

Samothrace

Limnos

Lesbos

Khios

Cyclades

23. Given one side of an equation from thermodynamics, give the quantity which it is equal to for ten points each.

(10) The change in heat plus the change in work.

change in internal energy (accept equivalents) or _delta U_

(10) Internal energy plus the quantity pressure times volume

enthalpy or _H_

(10) enthalpy minus the quantity temperature times entropy

Gibbs free energy (accept: _Gibbs energy_) or _G_

24. Answer these related questions, FTSNP:

(10) This movement in architecture is characterized by flying buttresses and other innovations designed to work around heavy stone walls.

Gothic

(10) These had been used before but were now developed to reduce the problem of heavy ceilings. The weight was shifted from the wall to these, and it eliminated the need for long continuous walls. Also, it enabled designers to build ceilings with thin panels.

ribbed vaults

(10) This is considered the first surviving early Gothic building. It is located in Paris, and named for that city's alleged first bishop.

the abbey of _Saint- Denis_

25. Answer the following questions about American magazines for 15 points each:

(15) They don't really create much content of their own, preferring to purchase it from other magazines, but that hasn't stopped their circulation from topping 100 million in 19 languages worldwide—the largest in the world. Name this monthly founded by DeWitt and Lila Wallace.

Reader's Digest

(15) About as far left as _Reader's Digest_ is right, this Minneapolis-based magazine founded by its namesake first editor in 1984 bills itself as "The Best of the Alternative Media."

Utne (UHT-nee) Reader

26. 30-20-10 name the god.

(30) The remains of his temple in Rome still dominate the west end of the Forum which served as the treasury of the Roman Empire.

(20) His cult partner was the obscure goddess Lua, whose name is connected with plague or destruction. This is notable as he is the chief male agricultural figure and the god of sowing seed.

(10) As the Roman god associated with Cronos, he is the father of Jupiter and Juno

Saturn

27. Name these works written in Old English, FTPE

(10) This poem is about the defeat of the English, led by Byrthnoth, at the hands of the Vikings, an event entered in the _Anglo-Saxon Chronicle_ for the year 991. Byrthnoth bravely but foolishly allows the Vikings to come ashore and fight rather than paying tribute.

The _Battle of Maldon_

(10) This poem is about the crucifixion of Christ. It uniquely blends Christian and pagan ideals in that the narrator is a brave yet humble talking cross.

The _Dream of the Rood_

(10) This poem is about a man who is the sole survivor of his people, the worst fate imaginable. He is condemned to roam the country in search of someone who knew his people. It opens with a description of the "earth-stepper" stirring the sea with his hands.

The _Wanderer_