2004 Truman State
Brainal Leakage
Packet 7

Tossups

1. (Maddog_asianlit) In his prose work Oku no Hosomichi, or The Narrow Road Through the Deep North, he describes his travels through northern Japan. His pseudonym meant banana tree, $\left(^{*}\right)$ probably taken from the one that grew outside his hut. Because the climate was too cold for the tree to bear fruit, many think he took the name to label himself as the useless poet. FTP, name the poet who turned the art of Haiku from a comic form into a serious medium imbued with Zen Buddhism.
Answer: Matsuo _Basho_ (accept Matsuo Munefusa)
2. (Maddog_AmHist) Centered in the regions of southern Oaxaca and the Isthmus of Tehuantepec, little is known of the origins of this civilization. $\left(^{*}\right)$ The people of this civilization have no traditions or legends pointing towards migration, but instead believed that they were born directly from objects in nature, such as rocks, trees, or jaguars. FTP, name this group that had a great religious center at Mitla, mathematics and calendars similar to those of the Maya, and maintained an alliance with the Aztecs until the arrival of the Spanish.
Answer: _Zapotec_
3. (Maddog_misclit) Perhaps in a forecast of his later works, his autobiographical short work A History of Yesterday spends pages analyzing the events of the day and night before yesterday. So enthralled is the author in telling us about two days ago that he never gets around to telling us about yesterday at all. (*) In Diary of 1855 he tells of how, while fighting in the Crimean War, he lost his ancestral home, Yasnaya Polyana, in a game of cards. FTP, name this author who was long winded even in his short stories, stunk at cards, and died in the Astapovo train station in 1910.

Answer: Leo _Tolstoy_
4. (piguy_bio) Types of this process include butyric-butylic, butanediol, propionic, mixed-acid, homolactic, $\left(^{*}\right.$ ) and alcoholic. The process is the result of the need to recycle the limited amount of NAD by passing the electrons of reduced NAD off to other molecules. In this process, pyruvic acid is metabolized in the absence of oxygen. FTP, name this process that is common in yeasts and is used in making bread and wine.
Answer: _fermentation_
5. (Maddog_geog) Along with the Kattegat and the Oresund straits, this body of water connects the North Sea to the Baltic Sea. (*) Only 130 miles long and 70 miles wide, it is often the site of violent storms. FTP, name this body of water off the coast of Denmark that is known to every serious Diplomacy player and was also the site of the 1916 Battle of Jutland.
Answer: _Skaggerak_
6. (tallpaul_bhist) Along with St. Paul's Cathedral, this English church is the origin of the expression "robbing Peter to pay Paul." (*) This landmark is formally known as The Collegiate Church of St. Peter, and was a rival to the Church of St. Paul to the east of it. In the annals of history, however, this church will always be of incredible significance, as from 1066 to the present, only two English monarchs were not crowned here. In addition, many important historical figures are buried here, from Charles Dickens to Lord Kelvin to Isaac Newton. FTP, name this famous London abbey.
Answer: _Westminster_Abbey (accept The Collegiate Church of St. Peter for early answers)
7. (brian_polisci) The daughter of immigrants, she was a fierce antiwar protestor while in college and won her first elective office in 1976. (*) She won election to the U.S. House in 1982, her first of five successful bids before her election to the Senate ten years later along with Dianne Feinstein, a notable election in that it was the first time two women were simultaneously elected to the Senate. FTP, name this California democrat known for her strong environmental and pro-abortion rights views.
Answer: Barbara _Boxer_
8. (jgaunt_alit) This man met Caroline, a medical student at Johns Hopkins University, and subsequently fell in love with her. $\left(^{*}\right)$ Caroline's teacher was also able to cure his back pain. After completing his doctorate in history, he takes a job at the United States Naval Academy where he also acts as a civilian analyst for the CIA. He has risen through the ranks, eventually becoming President after a plane hijacked by terrorists is crashed into the Capitol Building. FTP, name this hero who became President at the end of Debt of Honor and whose earlier exploits include saving the Pope in Tom Clancy's Red Rabbit.
Answer: John Patrick _Ryan_(accept Jack Ryan)
9. (piguy_chem) Inhaled oxygen being converted to water and carbon dioxide. The corrosion of aluminum structures. The rusting of the iron and steel in cars, bridges, and buildings. (*) All of these processes occur via a specific and very important class of chemical reactions in which electron transfer takes place between atoms. FTP, name this class of reactions in which there is a change in the namesake states of the involved atoms.
Answer: _oxidation-reduction_reactions (accept redox reactions)
10. (jgaunt_mischist) One of his theorems states that if you take some number a, multiply it by itself $\mathbf{p}$ times and subtract a, the result is divisible by $\mathbf{p} .\left({ }^{*}\right)$ His son Samuel undertook the process of collecting his notes and other mathematical papers when he came across these words in Diophantus' Arithmetica: "I have discovered a truly remarkable proof which this margin is too small to contain." FTP, name this number theorist whose lasting legacy is supposing that x to the n plus y to the n equals z to the n has no nonzero integer solutions when n is greater than two. Answer: Pierre de _Fermat_
11. (kyle_music) Lesser known musicians associated with this sub-genre of popular music include The Diamonds, Hank Ballard \& the Midnighters, and The Impressions. (*) Its signature characteristic is the repeating, incoherent background vocals, easily evident in The Del-Vikings' "Come Go With Me" and The Chiffons' "He's So Fine." FTP, what is this style of music which prominently features The Drifters, The Platters, and Gene Chandler?
Answer: _doo-wop_
12. (chalsey_myth) Two answers required. Although not the rulers over life and death, these two were part of a mythological trio who were sisters to another trio, the Graeae, which were also known as the Three Old Women of the Sea. $\left(^{*}\right)$ One of them is armed with a spear of great antiquity, while the other wears an armor made out of lion's skin. Both immortal, they lived with their mortal sister on the edge of the world as objects of horror. FTP, name Medusa's two Gorgon sisters.
Answer: _Euryale_AND _Sthenno_
13. (jlive_phys) The effective volume of a container unavailable to any one molecule is one-half the total volume of the spheres of exclusion or four times the total molecular volume. (*) Replacing the actual volume of the container with the volume available to a single molecule, the ideal gas law becomes, FTP, what equation of state?
Answer: _Clausius_ equation of state
14. (laura_psych) Baddely and Hitch proposed the "working" variety of storage as an alternative to this previously described term that was introduced by Atkinson and Shiffrin, $\left(^{*}\right.$ ) whose model contains, along with this type of storage, sensory storage and long-term. Items remain here for around twenty seconds and it can only hold about seven items at a time. FTP, name this form of memory.
Answer: _short-term_ memory
15. (kyle_misclit) At age 17, his first plays and poetry were published, just three years after leaving his povertystricken home of Odense for Copenhagen. (*) In 1835, his first successful novel, The Improviser, was published, which led him to travel around the world to develop his novels and plays. Yet it was also in 1835 that the first of his fairy tales were published. FTP, name this writer best known for The Little Mermaid, The Emperor's New Suit, and The Ugly Duckling.
Answer: Hans Christian _Andersen_
16. (jlive_math) The set of all real numbers is not, but Cantor's set, every finite set, and the empty set all are. (*) Every closed interval is, and if every open cover for a set has a finite subcover, then that set is as well. A set is this whenever every sequence in the set has a subsequence that converges to a limit that is also in the set. FTP, identify this term denoting any closed and bounded point set.

Answer: _compact_
17. (piguy bio) Enzymes in this pathway include $\alpha$-ketoglutarate dehydrogenase and succinate dehydrogenase. (*) Significant events in this biological pathway include the oxidation of carbon, the transfer of electrons to coenzymes, and substrate-level energy capture. The pathway takes the product of the pyruvate dehydrogenase reaction and sends it through 8 different enzymatic reactions. FTP, name this cycle whose steps were first identified in the 1930s by a German biochemist after whom it was named.
Answer: _Krebs_Cycle (accept tricarboxylic acid cycle, TCA cycle, or citric acid cycle)
18. (kerrith_blit) A kid with a Comet Two Sixty is unfortunate, but better off than anyone stuck with a Cleansweep Seven. (*) Serious amateurs with enough money might go for the professional-line Firebolt. A few years ago the Nimbus 2000 was all the rage, but it was quickly made obsolete by the Nimbus 2001. FTP, name this essential item of apparel for the sporting wizard, as described by J.K. Rowling.
Answer: _broomstick_ (accept broom)
19. (Maddog_ceurhist) Originally entitled Operation SHINGLE, it was intended to launch on December 20 but was shelved just two days before. A restructuring of the Mediterranean command led to its resurrection. (*) The operation launched on January 22, 1944, with the intention of breaking the Gustav Line and opening the door to Rome. FTP, identify this massive Allied invasion of Italy, named for the beach resort town near which it took place.
Answer: _Anzio_
20. (kyle_flit) Born in Russia, this French poet and playwright contributed to the Theatre of the Absurd during the peak of his career. $\left(^{*}\right)$ Besides his plays Professor Taranne and Ping Pong, he wrote social commentaries and is best known for his analysis of the Paris Commune in Le Printemps '71. FTP, name this author whose first major work was his autobiography, The Confession.
Answer: Arthur _Adamov_
21. (Maddog_Art) The patrons of this work were unhappy with the finished product, which portrayed resignation and despair, not calm heroism. Other deviations from the norm included the low pedestal and stylized figures with elongated arms $\left(^{*}\right)$ and huge hands and feet. The sculptor also rebuffed the conventional pyramidal structure that elevated one hero, instead placing all the figures at equal height with no common glances or gestures. FTP, identify this innovative sculpture by Rodin that depicts an event from the Hundred Years' War.
Answer: The _Burghers of Calais_
22. (piguy_chem) When using this symbolic method typically used to represent chiral molecules, interchanging any two groups on a chiral carbon inverts its stereochemistry. (*) In addition, when using this type of projection, the entire projection can be rotated $180^{\circ}$ in the plane of the paper without changing its stereochemistry. Carbon chains are usually placed along the vertical, most oxidized end at the top of the molecule in this type of symbolic representation. FTP, name this type of projection that looks like a cross and was developed by the German chemist for which it was named.
Answer: _Fischer_ projection
23. (jgaunt_mischist) After receiving a BA and MA from Bluefield College in West Virginia, his choices to further his pursuit of knowledge were Harvard, Chicago, Michigan, and the college he eventually chose: Princeton. (*) He showed an interest in a broad range of mathematics from topology to algebraic geometry. However, he is best well known for his doctoral thesis. FTP, name this Nobel Prize-winning economist whose theories of finding equilibrium points is considered the most important idea in non-cooperative game theory.
Answer: John _Nash_

## Bonii

1. (nick_econ) Given its CEO, name the company, FTPE:

10-Jeffrey Immelt.
Answer: _General Electric
10-H. Lee Scott, Jr.
Answer: _Wal-Mart_
10-Douglas N. Daft.
Answer: _Coca-Cola_Company
2. (tim_cs) Expand these acronyms related to computers. You will receive five points for one correct response, 10 for two, 20 for three, or 30 for all four correct.

A-ISO.
Answer: _International Organization for Standardization_
B-BIOS.
Answer: _basic input/output system
C-HTTP.
Answer: _hypertext transfer protocol_
D-MICR.
Answer: _magnetic ink character recognition_(accept magnetic ink character reader)
3. (jlive_math) Identify the theorem of point-set topology from description FTPE.

10-Every bounded sequence contains a convergent subsequence.
Answer: Bolzano-Weierstrass_ Theorem
10 -A subset K of the real numbers is compact if and only if it is closed and bounded.
Answer: _Heine-Borel_Theorem
10 - The set of all real numbers cannot be written as the countable union of nowhere-dense sets.
Answer: _Baire's_ Theorem
4. (Maddog_asianhist) FTPE, identify the Mogul emperor given clues.

10-First Mogul Emperor, nuff said.
Answer: _Babur_
10-Babur's grandson, he recovered the lands lost by his father and expanded the empire's frontiers to include all of upper India. He laid the groundwork for the splendid art and architecture of his successors.
Answer: _Akbar_
10-Akbar's son, he became emperor in 1605. His wife, Nur Jahan, an Iranian widow, plagued his reign with intrigues, and two of his sons led rebellions against him.
Answer: _Jahangir_
5. (jlive_phys) Solve the following problems having to do with relativity FTPE.

10 -Suppose Bob travels to a planet 12 light years away at a constant rate of 0.6 c , how long will Bob think the trip takes? Answer: _16 years_

10 -If Bob is 30 years old when he begins his trip, how old will his identical twin be when Bob arrives?
Answer: _50_years old
10-If Bob and his twin both have a mass of $m$ kilograms when at rest, what is the difference in their mass while Bob is on his trip?
Answer: _ $0.25 \mathrm{~m}_{\text {_ }}$ kilograms [accept one-fourth m or m over four kilograms]
6. (Maddog_ceurhist) FTPE, name the prominent figure from the First Crusade given clues.

10-In November 1095, this pope started the First Crusade, calling for a Christian expedition to free Jerusalem from the Seljuk Turks.
Answer: _Urban II_
10-This French noble and Crusade leader was appointed first leader of the Latin Kingdom of Jerusalem, taking the title of Defender of the Holy Sepulchre in 1099.
Answer: _Godfrey of Boullion_
10-This Norman noble and de facto leader of the Crusades captured Antioch in 1098, becoming prince and creating a Crusader dynasty in Syria.
Answer: _Bohemond I_
7. (piguy_sports) FTPE, answer the following questions about sports networks.

10-"ESPN" no longer officially stands for anything, but it did when it first hit the air. State what this acronym used to stand for.
Answer: _Entertainment and Sports Programming Network_
10 -ESPN has produced many fine sports anchors, including one who termed it "The Big Show." Name this sports anchor, whose "tag team partner" was Dan Patrick.
Answer: Keith _Olbermann_
10-The TV show Sports Night introduced a fictitious sports network that competed against ESPN and Fox Sports. Name this network.
Answer: _CSC_(accept Continental Sports Channel)
8. (tallpaul_bhist) Identify the following men associated with the Iron Mask for the stated number of points.

15-In 1768, French writer Poullain de Saint-Foix claimed this English lord was the "man in the iron mask." The son of Lucy Walters, he led a rebellion in 1685 against King James II. Name this illegitimate son of Charles II of England. Answer: _James Scott_ (prompt on Duke of Monmouth)

15-In 1688, the Marquis de Saint-Mars, the prison keeper of the "man in the iron mask," wrote that there were rumors floating around that his secret prisoner was this man, who briefly ruled England as Lord Protector from 1658-1659. After struggling with the army and republicans in Parliament, he abdicated in 1659, paving the way for the return of Charles II. Answer: _Richard Cromwell_
9. (piguy_bio) Answer these related questions for the stated number of points.

10-Exposure to ethylamine, an alkylamine antigen, induces $\gamma \delta$ [gamma delta] T-cells to produce far more infectionkilling chemicals, such as interferon. Name the commonly consumed beverage that contains an abundance of an ethylamine-producing chemical.
Answer: _tea_
15-The ethylamine-producing chemical in tea is a derivative of L-glutamic acid with the chemical formula $\mathrm{C}_{7} \mathrm{H}_{14} \mathrm{O}_{3}$. Name this amino acid whose R-group is $\mathrm{CH}_{2} \mathrm{CH}_{2} \mathrm{CONHCH}_{2} \mathrm{CH}_{3}$.
Answer: _L-theanine_ (accept gamma-ethylamino-L-glutamic acid, gamma-glutamylethylamide, R-glutamylethylamide, L-glutamic acid gamma-ethylamide or L-N-ethylglutamine)

5-Only tea that contains actual tea leaves have a high concentration of the beneficial L-theanine. Which of the following types of tea do not contain actual tea leaves-black, green, oolong, or herbal?
Answer: _herbal_tea
10. (Maddog_AmHist) He began life as one of twelve children of a poor German butcher and died the richest man in the United States. FTPE, Answer these questions about John Jacob Astor.

10-In 1800, this land across the Pacific was an excellent market for furs, and Astor claimed to have made over $\$ 50,000$ in a single voyage here.
Answer: _China_
10 -In some ways, this conflict was a blessing and a curse for Astor. He lost his allies in the Canadian fur trade, but he also profited greatly from a loan he made to the United States government.
Answer: _War of 1812_
10-In 1803, Astor paid $\$ 25,000$ for 70 acres of land proximal to New York City’s then-limits. Little did he know that this parcel of land would come to be one of America's most recognizable cultural landmarks and a testament to capitalism. Name this area now famous for its signs and television studios.
Answer: _Times Square_
11. (piguy_chem) Answer the following questions about magnetism, FTPE.

10-This term applies to substances, such as chalk, sea salt, and cloth, that are slightly repelled by a strong magnet. Answer: _diamagnetic_ materials (or substances, etc.)

10-This term applies to substances that are attracted to a magnetic field, such as metals or even oxygen.
Answer: _paramagnetic_ materials (or substances, etc.)
10-The magnetism of paramagnetic materials is often so weak that it is only observable in the presence of a strong magnetic field. Exceptions to this encompass this group of substances, of which magnetic effects are readily observable. Name this group of materials that are used to make the little magnetic devices used in the home.
Answer: _ferromagnetic_ materials (or substances, etc.)
12. (jlive_philo) You will be given a description of a symbol from modal logic. Give the term denoting that symbol for ten points. Failing this, identify the term from a description of its meaning for five points.

10-Diamond.
5-A proposition that might have had a different truth-value.
Answer: _possible_(accept irrefutable, accept possible world but give the player a dirty, dirty look)

## 10-Box.

5-A proposition true in every possible world.

Answer: _necessary_(accept provable)
10-Fishhook.
5-Usually understood as a necessary application of a material conditional.
Answer: _strict implication_
13. (greg_glit) Have you always like opera but thought it was just too expensive? Well this question writer feels your pain. Just say no to overpriced opera by answering these questions about the Threepenny Opera FTPE.

10—The Threepenny Opera was based on what 1728 satire by John Gay?
Answer: The _Beggars Opera_
10—The Threepenny Opera was a collaboration between Bertolt Brecht and what composer?
Answer: Kurt_Wiel_
10 - This London police chief arrives at the end of the play with a letter of pardon from the queen that spares Macheath from execution.
Answer: _Tiger Brown_
14. (kerrith_blit) FTPE, given a summary, identify the Sherlock Holmes story.

10-A man disguises himself with sunglasses and courts his not-very-bright stepdaughter to prevent the loss of her money should she marry someone else.
Answer: A_Case of Identity_
10-Another evil stepfather trains a snake to crawl through a ventilator opening, bite his stepdaughter, and return when he whistles for it ... an impressive feat for an animal without ears.
Answer: The _Speckled Band_
10-A police officer finds a goose, which holds in its stomach a fabulous precious stone. Holmes traces the path of the stone back to its origin, with the help of an old felt hat.
Answer: The _Blue Carbuncle_
15. (katypeters_music) Name the Broadway show given the titles of some of its musical numbers. Ten points will be awarded if you can name the show based on a more difficult clue. If you need an easier clue, only five points will be awarded.

10-"I Can Do That" and "Dance, Ten; Looks, Three."
5-"One."
Answer: A _Chorus Line_
10-"Wishing You were Somehow Here Again" and "Prima Donna."
5-_"The Music of the Night."
Answer: _Phantom of the Opera_
10-"Miracle of Miracles" and "Do you Love Me?"
5-"Tradition."
Answer: _Fiddler on the Roof_
16. (jlive_alit) Identify the characters from Gravity's Rainbow from descriptions for fifteen points each.

15-The naive, American lieutenant and protagonist of the work, he was programmed by Dr. Ned Pointsman to locate a

German V-2 rocket, a search ultimately doomed to failure.
Answer: Tyrone _Slothrop_
15-A British officer and mathematician, he is the representative of chance and indeterminacy, as well as the lover of Jessica Swanlake. He shows a sympathetic interest in Slothrop as contra "Them."
Answer: Roger _Mexico_
17. (brian_religion) Name these patron saints FTPE.

10-China.
Answer: _Mary_
10-Colleges.
Answer: Thomas _Aquinas_
10-Dancers.
Answer: _Vitus_
18. (Maddog_mischist) 30-20-10—Name the member of the British Commonwealth.

30-Prime Minister Richard Seddon, known as King Dick, led this nation into involvement in the Boer War.
20-Twenty years later, this nation would supply 100,000 troops to the Allied cause in World War I, a tenth of its total population.
10-The first settlers of this pair of islands, the Maori, call it Aotearoa, meaning "the land of the long white clouds." Answer: _New Zealand_
19. (jgaunt_misclit) Give the Chilean author of the following works for the stated number of points.

15-This man wrote Death and the Maiden, a play in which a woman moves next door to a man whom she believed tortured her in prison, made into a movie starring Sigourney Weaver.
Answer: Ariel _Dorfman_
15-This man wrote The Postman, a fictional play in which Pablo Neruda befriends a postman while in exile. The play was the inspiration for the film Il Postino.
Answer: Antonio _Skarmetaa
20. (Maddog_archaeol) Human ruins and remains are not the only things that interest archaeologists. For fifteen points each, identify these terms dealing with the archaeology of plants.

15-This archaeological subfield studies plant remains from archaeological sites.
Answer: _paleoethnobotany_
15-A subfield of paleoethnobotany, it deals with the study of pollens.
Answer: _palynology_(accept micropaleontology)
21. (piguy_chem) FTPE, answer the following questions about acid-base reactions.

10-This type of Bronsted acid is capable of donating one proton.
Answer: _monoprotic_acid
10-These substances are molecules or ions that can behave either as a Bronsted acid or base. One example is water.

Answer: _amphiprotic_substances
10-This is the name of a pair of compounds or ions that differ by the presence of one hydrogen ion.
Answer: _conjugate_ acid-base pair
22. (jgaunt_misclit) 30-20-10—Name the playwright given works.

30-Blood of Requited Love.
20-Betrayed by Rita Hayworth.
10-Kiss of the Spider Woman.
Answer: Manuel _Puig_
23. (Maddog_mischist) FTPE, identify these men who explored Australia.

10 -This Dutchman was sent by the governor general at Batavia, a city now known as Jakarta, to explore the southern oceans. He landed on an island south of Australia in 1642, naming it Van Deimen's Land before heading east to explore New Zealand.
Answer: Abel_Tasman_
10-This English explorer first saw Australia as a member of the crew of the Cygnet in 1688. He returned with his own expedition in 1699, and his logs of his voyages are models for today's mariners. He is perhaps better known as a privateer under whom Alexander Selkirk served before being marooned, helping to inspire Robinson Crusoe.
Answer: William _Dampier_
10-This Englishman was the first person to circumnavigate Australia when he did so from 1801 to 1803. A river in Queensland, a naval depot near Melbourne, and a passage through the Great Barrier Reef now bear his name.
Answer: Matthew _Flinders

