

WIT 2002

Round 7

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Packet by Chicago (Philo Davidson, Selene Koo, Peter Onyisi, Matt Reece) for Berkeley WIT X

[History/Politics/Government]

The basic operations on them are named P and V for their Dutch abbreviations. The most familiar type is perhaps the “mutual exclusion” or “mutex” variety. Monitors are among the objects that may be built from these basic synchronization primitives. Though starvation through is possible with the weaker POSIX semantics, it cannot occur in the original version of Dijkstra that solved his Dining Philosophers problem. FTP, name these objects which can be “raised” and “lowered” like the flags used in the archaic communication method that gives them their name.

Answer: semaphores

Among the best known of their tribes were the Ekwesh, Sherden, and Peleset. They are believed to be attested in a letter to the Hittites from the rulers of the city of Ugarit. Because Ramses III undoubtedly exaggerated in his inscriptions celebrating their defeat, the true extent of their migration is unknown. FTP, give the generic name for these tribes blamed for widespread destruction in the Mediterranean world at the end of the Bronze Age, so named because some of them were from islands and coastal areas.

Answer: Sea Peoples

His philosophical opinion that space-time could not be intrinsically flat or curved lead him to propose an alternative to the general theory of relativity. He argued that since all real objects have finite extent, mathematical points are abstractions that do not exist in the real world. He also claimed that the basic metaphysical constituent of the universe was the process of becoming in his *Process and Reality*. FTP, name this coauthor of *Principia Mathematica* in collaboration with Bertrand Russell.

Answer: Alfred North Whitehead

He began his rise to political power as the Collector of the Port of New York. A protégé of senator Roscoe Conkling, he overstaffed the customs house with Conkling's supporters, and was fired during Hayes's reforms of the spoils system. FTP, name this man who changed his tune in forcing the passage of the Pendleton Act in 1883 after succeeding Garfield to become the 21st President.

Answer: Chester A. Arthur

He become prime minister after the 1978 resignation of B. J. Vorster, and under the constitutional reforms of 1983, became his country's first president. In 1982, his policies provoked the far right wing of his National Party to break away in protest. His government repealed the pass laws and removed bans on interracial marriage, but the new constitution created segregated parliamentary bodies for Indians and Coloreds and continued to deny the franchise to Africans. FTP, name this South African leader succeeded by de Klerk, who shares his last name with first South African prime minister Louis.

Answer: Pieter Willem Botha [BOH-tuh]

This four-star general began his political career as a military aide to Henry Kissinger in 1969. After the resignation of Nixon's top aides during Watergate, he became Chief of Staff. When Nixon resigned, he began a five year stint as commander of NATO, returning to politics as Reagan's secretary of state until his 1982 resignation over differences in opinion on foreign policy. FTP, name this man who famously and erroneously claimed at a televised press conference that he was "in control" on the day of the attempted assassination of Ronald Reagan.

Answer: Alexander Haig

[Literature]

His Ph.D. thesis, on “The State of Nature in 17th and 18th Century English and French Political Philosophy,” was followed by a major work on “Romanticism and Christianity.” However, his academic career and personal life collapsed. His wife Madeleine had an affair with his friend Valentine, leading him to leave Hyde Park for New York, where he writes letters to, among others, General Eisenhower, Schrödinger, and Nietzsche. FTP, who is this title character of a 1964 Saul Bellow novel?

Answer: Moses E. Herzog

The name’s the same. The title of a poem in which the speaker describes herself as “The dew that flies, / Suicidal, at one with the drive / Into the red / Eye.” A poetry collection containing the poems “A Song for Simeon” and “The Journey of the Magi.” The name of a spirit who is released from captivity in a tree to perform magic for his new master. FTP, identify this name that describes a group of poems by T.S. Eliot, a poem and posthumously published poetry collection by Sylvia Plath, and Prospero’s assistant in *The Tempest*, as well as the Little Mermaid.

Answer: Ariel

His mother called him Sophia and dressed him in girl’s clothing, but he rebelled, changing his first name from René to a more masculine name at the age of 22. He died in 1926 from leukemia hastened by pricking his finger on a rose thorn. During the course of his wanderings through Europe, he wrote *The Book of Hours* and served as Rodin’s secretary. Known for “object-poems” that sought to make inanimate objects come alive, for ten points, name this poet who wrote the poetry cycles *Sonnets to Orpheus* and the *Duino Elegies*.

Answer: Rainer Maria Rilke

[Fine Arts]

A smaller version of this painting is in London’s Courtauld Institute. The inspiration for over 200 works by Picasso, this painting was itself inspired by Marcantonio’s copy of Raphael’s lost “The Judgment of Paris” and Giorgione’s “Concert Champêtre.” Originally titled “Le Bain” when it was first exhibited by the Salon des Refusés in 1863, the models of the central figures are believed to be the painter’s brother-in-law, younger brother Eugene, and Victorine Meurent. For ten points, name this 1863 Manet painting.

Answer: Le Déjeuner sur l'herbe or Luncheon on the Grass (accept equivalents)

This opera required a relatively small orchestra of 38 instruments and a chorus of less than 30, but lasted over four hours in its original version, possibly because its composer never heard it performed by an orchestra before its premiere at Weimar in 1850. Dedicated to Franz Liszt, the opera opens with the accusation that Elsa has murdered her brother Godfrey. Named for its hero, the son of Parsifal who acts as Elsa's champion after arriving in a swan-drawn boat, for ten points name this Wagner opera containing a famous Bridal Chorus.

Answer: Lohengrin

[Humanities and Social Science]

They believe that the path to God, known as tarqah, is obstructed by the ego. They believe in 12 principles represented in the four-letter acronym TSVF ["tasawouf"], and trace their spiritual origins to the fourth caliph Ali and Mohammed's spiritual advisors and disciples. With a name that may be derived from the coarse wool worn by its believers, for ten points, name this belief that represents the ascetic and mystical movements of Islam.

Answer: Sufism

His older half-brother Titu Cusi usurped power from him from 1560 to 1571, but made him a priest in Vilcabamba. He later became ruler, and on June 1, 1572, war with Spain broke out. Twenty-three days later, Vilcabamba, the last free city of his kingdom, surrendered, and he fled with his pregnant wife. He was caught and beheaded in Cuzco, and his remains buried in a church constructed over an Incan monument to the Sun. FTP, who was this last Inca ruler, who gave his name to a rebel group and a slain rapper?

Answer: Tupac Amaru

In the 1830s, as a professor of physics at Leipzig, he began to publish papers on perception of complementary colors and subjective afterimages. He also studied just-noticeable-differences, and sought to show unity of mind and body by measuring a correspondence in mental intensity and bodily energy. FTP, name this founder of psychophysics, best known for the law that the intensity of sensation is proportional to the logarithm of the intensity of a stimulus, named for him and Weber. Answer: Gustav Theodor Fechner

This country's soccer team is now ranked 202nd out of 203 countries, thanks to a June 2002 4-0 home victory over Montserrat. At the conclusion of that match, they watched the World Cup final on television, which had been introduced to this isolated kingdom in June of 1999. Ruled since 1907 by the Wangchuck dynasty, it is one of the world's poorest nations, and yet has a major problem with illegal Lhotshampas from Nepal. FTP, name this country between India and China whose capital is Thimpu.

Answer: Kingdom of Bhutan

[Science]

In a ring of fixed radius R , it scales as one over the third power of the beam particle mass and as the fourth power of the beam energy. It is also inversely proportional to the square of the radius of the ring. In hadron colliders like the Tevatron or the LHC, it is insignificant; similarly, it could be neglected in a future circular muon collider. However, for circular electron-positron colliders it is significant and necessitates building linear colliders. FTP, what is this energy lost by accelerating particles, which shares its name with the type of accelerator that produces it?

Answer: synchrotron radiation

At the end of this novel, the narrator must tell a woman of the death of her fiancé. He has met a Russian follower of that fiancé, who tells him, "You don't talk with that man — you listen." The man in question is unquestionably charismatic; it is claimed that his true calling was politics. This story of this novel, which provides an epigraph for T. S. Eliot's "The Hollow Men," is told on the cruising yawl *The Nellie*, bound down the Thames. FTP, what is this Joseph Conrad novel in which Marlow seeks out Kurtz?

Answer: *Heart of Darkness*

These regions are markedly asymmetric, in Earth's case being up to a thousand times larger in one direction than another. Funnel-shaped polar cusp regions occur in the areas of strongest radial field, and bow shocks are observed as supersonic plasma is redirected around them. Particles trapped in them emit radio signals; in Earth's case, these particles are confined to

the two Van Allen belts. FTP, name this region of space dominated by a planet's magnetic field.

Answer: magnetosphere

These organisms develop from a single-celled spore into a protonema, which differentiates into rhizoids and a stem containing water-conducting cells known as hydroids. The sporophyte grows as a seta from the gametophyte, which is the dominant structure of this group of plants. For ten points, name this division of nonvascular land plants that lack lignin and xylem and consist of hornworts, liverworts, and mosses.

Answer: bryophytes or Bryophyta (accept moss before it is mentioned)

His father, a blacksmith, named him after a Mexican revolutionary. He went to Switzerland to avoid military service, and there attended lectures by Vilfredo Pareto. He eventually became active in politics, and edited socialist and nationalist newspapers such as *Il Popolo d'Italia*, founded in Milan in 1914. Hewas executed along with Clara Petacci, his mistress, near Lake Como in 1945. FTP, who is this Italian fascist known as "Il Duce"?

Answer: Benito Mussolini

The six elements in this group of metals are used in the manufacture of catalytic converters for automobiles, as well as resistance to high temperatures, resistance to other chemicals, and stable electrical properties. Lying in the 5th and 6th period of the periodic table, Iridium, osmium, rhodium, ruthenium and palladium are five of its members, . FTP, name the group named for its sixth member, a whitish, tarnish-resistant metal sometimes used in jewelry and usually worth slightly more than gold.

Answer: Platinum Group Metals (PGMs)

[Other stuff]

Examples of the event described by this phrase include the introduction of Scrappy-Doo to Scooby-Doo, Colin Quinn joining the cast of SNL, Michael J. Fox leaving Spin City, and the event the phrase is named after, which came during a "very special" three-part episode of Happy Days. The phrase has since spawned an eponymous website, book, and future game show. FTP,

give this phrase, which can also be extended to describe any point in the career of a celebrity from which things just went downhill, which names what Fonzie did while waterskiing over a tank.

Answer: Jump the Shark (accept word equivalents)

His past known clients include the governments of Iraq, Syria, and Egypt, but many more are suspected, possibly even including Israel. His group specialized in bloody terrorist attacks on demand, and also carried out attacks on Palestinian leaders suspected of pursuing peace with Israel. Among the most famous of his attacks was the 1982 shooting of the Israeli ambassador in London and a 1986 hijacking of an Egyptian airliner which left 61 passengers dead. FTP, name this famous terrorist, found dead in Baghdad in August 2002, officially a suicide.

Answer: Abu Nidal or Sabri al-Banna

According to Euripides, she successfully ward off the advances of Theoclymenus, the king of Egypt, for seventeen years. At the age of ten, she was kidnapped and sent to the city of Aphidna to be cared for by Aethra, the mother of her kidnapper. She was the mother of Hermione, daughter of Leda, and wife of three men including Deiphobos, FTP, name this mythical woman whose immortal beauty led to kidnappings by both Theseus and Paris.

Answer: Helen of Troy

Recabarren, the bar owner, watches as this man is killed on the plains. This ends Borges' story "The End," a retelling of the popular legend of this man. The original version tells of the payada, a song contest, between this man and "el moreno." The black man reveals his identity as the brother of a man once knifed by this character, but in the original version, they do not fight. Borges tells of their knife fight as it might have been. FTP, who is this hero of a poem by José Hernández?

Answer: Martín Fierro

BONI

[History]

5-5-10-10, name the pre-Columbian civilization from a major site.

[5] Chichén Itzá

Answer: Maya

[5] Tenochtitlán

Answer: Aztec

[10] Tollan

Answer: Toltec

[10] Uaxactún

Answer: Maya

Answer these questions about Persian history, FTPE.

[10] This empire arose out of an Azerbaijani Sunni Sufi order; they ruled Iran from the early 1500s until 1736. They doctored the records to show they were Shi'ite.

Answer: Safavid

[10] This man assumed control of the Safavids in 1494 at age 7 and conquered all of Iran by 1512. He claimed, heretically, to be a representative of the Hidden Imam.

Answer: Shah Ismail

[10] This Shah ruled from 1587 to 1629 and moved the capital to Isfahan. With the help of British mercenaries, he used artillery and regained land lost to the Ottomans.

Answer: Abbas I

Answer these questions about 19th century British politics, FTPE.

[10] He was a Whig MP who helped formulate a new penal code and educational reforms in India, but gave up politics to write a 5 volume History of England.

Answer: Thomas Babington Macaulay

[10] He organized the Conservative Party from the old Tories, and was prime minister from 1841 until he resigned in 1846 following the repeal of the Corn Laws. He's also the source of a nickname for British policemen.

Answer: Sir Robert Peel ("bobbies")

[10] As Prime Minister in 1870, he helped pass the Education Act. A leader of the Liberal Party, he pushed the Ballot Act for secret voting, and supported Irish Home Rule.

Answer: William Gladstone

Name these minor wars in North American history, FTPE.

[10] It saw the invasion of Florida by Britain because of the alleged mistreatment of English seamen by the Spaniards, and takes its name for an object shown in the House of Commons in 1738.

Answer: The War of Jenkins' Ear

[10] This early war was declared by President Thomas Jefferson to limit the amount of tribute that the United States had to pay to avoid raids by pirates. Though America was victorious, they were not able to achieve freedom from piracy until a decade later.

Answer: The Tripolitan or First Barbary War

[10] This 1839 war between Maine and New Brunswick luckily never saw a shot fired. Troops were dispatched, but both Britain and the United States quickly agreed to compromise when they realized the border dispute was over a pointless piece of land.

Answer: The Aroostook War

FTPE, identify the following about Asian Communist rebel movements.

[10] Its political wing was the Communist Party of Kampuchea. Their regime was toppled in 1979 by the Vietnamese, but they kept fighting from the jungles under Pol Pot for two more decades.

Answer: Khmer Rouge

[10] This group fought against a U.S.-backed regime during the Laotian civil war in the sixties and early seventies and took control of the country in 1975.

Answer: Pathet Lao

[10] The Communist Hukbalahap group formed this country's resistance against the World War II Japanese occupation, and rebelled after independence when their elected representatives to Congress were unseated by the Liberal Party.

Answer: The Philippines

Name these appointees of the Carter administration FTPE.

[10] Carter appointed this man Chairman of the Federal Reserve in 1979. He successfully combated inflation and served until the appointment of Alan Greenspan. In 2002, he was hired to clean up Arthur Andersen.

Answer: Paul Volcker

[10] He was appointed Secretary of State by Jimmy Carter in 1980, the last office he held in his political career. Before that, he had served as the senator from Maine, and lost the 1972 Democratic nomination for President after apparently weeping while defending his wife.

Answer: Edmund Muskie

[10] As Secretary of Housing and Urban Development and later of Health, Education and Welfare, she became the first African-American woman to

hold a cabinet position, a decade after she went to Luxembourg as the first female African-American ambassador.

Answer: Patricia Roberts Harris

[Literature]

Identify 19th century U.S. poems from quotes, FTPE, or from author, for five.

[10] “This is the ship of pearl, which, poets feign,/Sails the unshadowed main,
—/ The venturous bark that flings/ On the sweet summer wind its purpled wings”

[5] Oliver Wendell Holmes, Sr.

Answer: “The Chambered Nautilus”

[10] “My golden spurs now bring to me,/And bring to me my richest mail,/For
to-morrow I go over land and sea/In search of the Holy Grail”

[5] James Russell Lowell

Answer: “The Vision of Sir Launfal”

[10] “The sun that brief December day/Rose cheerless over hills of gray,/And,
darkly circled, gave at noon/A sadder light than waning moon.”

[5] John Greenleaf Whittier

Answer: “Snowbound”

Name the following about an English author for 10 points each. .

[10] This essay deals with its author’s role in Burma, his distaste for colonialism, and an event he claims to have participated in “solely to avoid looking a fool,” although he pretended it was because the slain beast killed a “coolie.”

Answer: “Shooting an Elephant”

[10] Which man, born Eric Arthur Blair and best known for two anti-totalitarian novels wrote “Shooting an Elephant” as well as *Down and Out in Paris and London*? Answer: George Orwell

[10] This humorous Orwell essay argues that just as social deterioration can degrade a language, so a degraded language can damage society. It advocates clear thinking and clear speech.

Answer: “Politics and the English Language”

Name these classics of Chinese literature, FTPE.

[10] Luo Guanzhong (GWAN-JONG) is said to have written the modern ver-

sion in the Ming era; it tells of the chaotic period following the fall of the Han dynasty.

Answer: Romance of The Three Kingdoms or San Guo Yan Yi

[10] It is the story of the love of the nobleman Jia Bao-yu and the commoner Lin Dai-yu. It was begun during the Qing (CHING) dynasty by Cao Xueqin (COW SHWUH-CHEEN) and completed by Gao E (GOW UH).

Answer: Dream of the Red Chamber or Story of the Stone or Hong Lou Meng

[10] During the Song dynasty, over a hundred men and women oppressed by the government flee to Liangshanbo, where, as this novel recounts, they band together and fight back in a fraternal manner.

Answer: The Water Margin or Outlaws of the Marsh or All Men Are Brothers or Shui Hu Zhuan (SHWAY HU JWEN)

Identify the following about the idea of the superfluous man in nineteenth century Russian literature, FTPE.

[10] The term “superfluous man,” used to describe an aristocratic character who is unable to act effectively, was first popularized by this author, who wrote the short story “The Diary of a Superfluous Man” as well as a novel about generational conflict and nihilism.

Answer: Ivan Turgenev

[10] This hero of an 1859 Ivan Goncharov novel is a nobleman who does nothing all day except eat and sleep, allowing his estate to go to ruin.

Answer: Oblomov

[10] This epileptic hero of a Dostoevsky novel visits the Yepanchin family, where his extreme kindness is perceived as a sign of stupidity.

Answer: The Idiot or Prince Myshkin

[Fine Arts]

Identify the following about ancient Greek sculptors for the stated number of points.

[10] He was the artistic director for the construction of the Parthenon and built a statue of Zeus that was considered one of the seven wonders of the ancient world.

Answer: Phidias

[10] The prostitute Phryné was the model for many of his sculptures of the female body, including the Aphrodite of Cnidus.

Answer: Praxiteles

[10] Pliny credits the otherwise unknown Rhodian sculptors Agesander, Athenodorus, and Polydorus as the creators of this work that depicts a priest of Apollo and his sons being crushed by sea serpents. Answer: Laocoön or the Laocoön group

NOTE to moderator: don't give answers until end of question.

FTPE, identify the following Finnish architects from works.

[10] The Helsinki central railway station

Answer: Eliel Saarinen

[10] The Finnish Pavilion at the 1938-9 New York World's Fair, Essen Opera House, and the Baker House dormitory at MIT

Answer: Alvar Aalto

[10] Gateway Arch and the main terminal of Dulles Airport

Answer: Eero Saarinen

[Humanities and Social Science]

Answer these questions about early social science in America, FTPE.

[10] He viewed the city as a social laboratory. He chaired the first U.S. sociology department and also founded the American Journal of Sociology.

Answer: Albion Small

[10] He argued that mind arises from social communication and cannot be examined outside this context. His lectures were collected in volumes like *Mind, Self, and Society*.

Answer: George Herbert Mead

[10] He studied head shapes of immigrant children to attack racist anthropological theories. His most influential work was *The Mind of Primitive Man*.

Answer: Franz Boas

Name the three items made by the dwarves Sindri and Brokk in a wager for Loki's head from a description FTPE.

[10] Thor's hammer, that never misses its target and always returns to his hand.

Answer: Mjollnir

[10] The golden ring that was given to Odin. Every ninth night, eight rings of the same weight drop from it.

Answer: Draupnir

[15] The boar with golden bristles given to Frey.

Answer: Gullinbrusti

Answer these microeconomics questions FTPE.

[10] This is the set of combinations of quantities of two goods that provide equal utility to a purchaser.

Answer: indifference curve

[10] Named for the man who developed the indifference curve, this graph plots two purchasers' indifference curves together to determine if trade in a fixed total amount of goods can improve their situations.

Answer: Edgeworth box

[10] This condition occurs when the indifference curves of two individuals in an Edgeworth box are tangent. When this occurs one person's gain is invariably someone else's loss.

Answer: Pareto optimality

FTPE, name the three Canadian provinces with capitals that are not on the Canadian mainland. Hint: Nunavut is a territory, not a province.

Answers: British Columbia, Newfoundland, Prince Edward Island

[Science]

Answer these questions about electromagnetism FTPE.

[10] These postulated entities are the magnetic equivalent of electric point charges.

Answer: monopoles

[10] The first to study monopoles, he observed that their would explain the quantization of the electric charge. He's also the name sake of a delta function and a scissors trick.

Answer: Paul Adrien Maurice Dirac

[10] This effect, in which magnetic flux can lead to a difference in phase around a loop, manifests itself as interference and shows that the vector potential is physical.

Answer: the Aharonov-Bohm effect

FTPE, answer these questions on astronomical measurement.

[10] This is the distance to a star such that its apparent position shifts due to parallax by one arc second over a year.

Answer: One parsec

[10] This is the observed angular movement of a star over a year that is due to the star's actual motion.

Answer: proper motion

[10] This nearby red dwarf, 1.8 parsecs away, is the star with the largest known proper motion.

Answer: Barnard's Star

Identify these similar-sounding parts of the human body, FTPE.

[10] This part of the diencephalon helps surround the third ventricle of the brain and relays sensory signals to the cerebral cortex.

Answer: thalamus

[10] This organ found near the lower part of the neck consists mainly of lymph tissue and decreases in size and activity after puberty.

Answer: thymus

[10] The abnormal enlargement of this butterfly-shaped gland is known as a goiter.

Answer: thyroid gland

Answer these questions about algebraic geometry for 10 points each. [10] In this sort of geometry, one looks at the set of lines in a vector space, and includes “points at infinity” so that any two lines must intersect. It is the geometry that underlies the study of perspective.

Answer: projective geometry

[10] If you want to consider the zero sets of polynomials in a projective space, where two points are the same if they are on the same line through the origin, you have to restrict yourselves to this sort of polynomial whose terms all have the same degree.

Answer: homogeneous polynomials

[10] Irreducible zero sets of polynomials are known by this name; they, and their higher-dimensional generalization called “schemes” are the algebraic analogues of manifolds.

Answer: varieties

A greenhouse gas is one that is opaque in some region of Earth's infrared spectrum, whether or not it is manmade. For 10 points each:

[10] What is the most abundant greenhouse gas in the earth's atmosphere?

Answer: water vapor or H₂O

[10] What greenhouse gas, produced naturally by microbial activity, is better known for its anaesthetic and physiological effects and its use as a propellant?

Answer: nitrous oxide or dinitrogen monoxide or N₂O or laughing gas

[10] What octahedral gas is estimated to trap 23,900 times more heat over its lifetime than the same mass of carbon dioxide, the most of any man-made greenhouse gas?

Answer: SF₆ or sulfur hexafluoride

[Other stuff]

Lost in the media coverage of fraud at corporate behemoths is the fraud at corporate giants. Name these companies, FTPE.

[10] In 2001, Martha Stewart, a friend of the CEO of this biotech company, unloaded shares in the firm the day before it tanked on news of FDA rejection of a key cancer drug.

Answer: ImClone

[10] The Rigas family did a perp walk after being charged with using this cable company, namesake of the Tennessee Titans' stadium, as "their own personal piggy bank."

Answer: Adelphia

[10] This Houston-based energy trader ran into trouble with their accounting practices following their aborted 2000 bid to take over Enron.

Answer: Dynegy

Answer these questions from the category of When White Trash Get Drunk and Go to Sporting Events, FTPE.

[10] In September 2002, he was coaching first base for the Kansas City Royals when a shirtless man and his son attacked him at Comiskey Park.

Answer: Tom Gamboa

[10] In 1995, this Cub reliever knocked down an attacking fan with his forearm during a game at Wrigley Field.

Answer: Randy Myers

[10] In the final game of the 1995 season, fans of this football team pelted the field with snowballs, knocking one assistant coach unconscious.

Answer: New York Giants (accept either)

Name the river that forms the border between these pairs of states, FTPE.

[10] South Carolina-Georgia

Answer: Savannah River

[10] Oklahoma-Texas

Answer: Red River

[10] California-Arizona
Answer: Colorado River