

Berkeley's WIT 7: Packet by Illinois, courtesy of Minnesota Deep Bench

Tossups

1. He rebuilt the Jama Masjid mosque, the Peacock Throne, and the Ravi Canal. He subjugated Ahmadnagar, Bijapur, and Goloconda but lost Kandahar. He suffered defeats at the hands of the Sikhs in the Punjab in 1628 and 1631, and was imprisoned by his son while on his deathbed in 1658. FTP, name this Mughal emperor and father of Aurangzeb who is probably best remembered for the edifice he built at Agra, the Taj Mahal.

Answer: Shah Jahan

2. This 1925 poem is composed of five sections and alludes to "such deliberate disguises" as a rat's coat and crowskin. The fifth section begins with a nursery rhyme about the "prickly pear" while the third alludes to "death's other kingdom". It is often interpreted as expressing its authors view of spiritual emptiness and contains the line "Mistah Kurtz- He dead. A penny for the Old Guy." FTP name this poem that ends with the lines "This is the way the world ends/ Not with a bang but a whimper" and was written by T.S. Eliot.

Answer: The Hollow Men

3. In 1962, this New York City native served on the Council of Economic Advisors in the Kennedy administration. His primary field is the study of collective choice based on uncertainty and risk, and some of his books include *The Future and Present in Economic Life* and *Social Choices and Individual Values*. FTP, name this man, whose study of the conflict between societal preferences and individual preferences resulted in a share of the 1972 Nobel Prize and a proof of his eminently impossible theorem.

Answer: Kenneth Arrow

4. Among them were Ulrich, Georg, Andreas, Anton, and Markus. Hans brought them to Augsburg in 1367 and twice married the daughters of the heads of textiles guilds. Jakob II, known as "The Rich", established his family in Innsbruck and was granted the countships of Weissenhorn and Kirchberg in 1507 by Emperor Maximilian I. In 1516 he made an ally of Henry VIII by granting him a loan, but perhaps his greatest move was financing the succession of Charles V to the emperor's throne. FTP, name this family of German bankers who flourished in the 15th and 16th centuries.

Answer: Fuggers

5. Reacting an alkoxide ion with an alkyl halide results in this type of compound and is known as the Williamson synthesis. An acid-catalyzed reaction of two alcohols will also yield this type of compound. One dangerous property of these compounds is that they form peroxides when reacted with oxygen. They have low boiling points because of a lack of hydrogen bonding, but the presence of an oxygen atom allows them to bond to water, giving them a high solubility in water. FTP, name these compounds which are marked by an oxygen atom singly bonded to two carbons.

Answer: ethers

6. This play opened in New York City in 1991 with Kevin Spacey playing Louie, a mob henchman. Louie's siblings are Eddie, who has no self esteem, Gert, who has a major speech impediment, and Bella, who is mildly retarded. The two main characters are Jay and Arty though who have been left by their father Eddie with their grandmother and the play deals with their adaptation to their grandmother. FTP, name this Pulitzer-prize winning play by Neil Simon.

Answer: Lost in Yonkers

7. First isolated in 1911 by George Barger and Henry Dale, this organic substance is generally converted to imidazolylacetic acid before its excretion. It is present in nearly all mammalian tissues, and functions in the secretion of gastric juice and the control of uterine movement during pregnancy, and also appears in the venom of many species of wasps and bees. FTP, name this substance secreted by mast cells which widens and increases the permeability of blood vessels as part of immune response and which is also involved in allergies.

Answer: Histamine

8. He came to power in 1969 in a bloodless coup, but he has long had a reputation as a sponsor of the most brutal terrorists, resulting in sanctions on his nation. He was also an opponent of apartheid in South Africa, and received a visit from Nelson Mandela, over the protests of the United States. FTP name this Arab leader, who recently released the prototype to what he claims is the safest car in the world, who had his home bombed by the US in 1986, and whose nation harbored those accused of the bombing of PAN AM 103.

Answer: Mommar Gadhafi

9. He was the first to demonstrate that air had weight, and developed an early theory of evolution. His thoughts reflect the Ionian and Eleatic traditions, but only two of his poems survive in fragments. The first describes a cosmic cycle in which Earth, Air, Fire and Water combine under love and strife while his other poem describes the Fall of Man, along with the transmigration and redemption of souls. FTP, name this 5th century B.C.E. dumbass, author of *On Nature* and *Purifications*, who supposedly jumped into Mt. Etna to support his prediction he would one day be taken up to heaven by the gods.

Answer: Empedocles

10. This name is applied to three rivers in of central Russia. The Upper one is the lower course of the Angara river. The Lower one flows about 2,000 miles before emptying into the Yenisey River while the Stony one flows about 1,000 miles generally west-northwest before it also empties into the Yenisey. This name is also applied more famously to a big event of 1908 in Siberia. FTP, give the shared name of these rivers as well as an explosion in Siberia that was thought to be caused by the Earth's impact with a comet.

Answer: Tunguska

11 It can have a phi angle of either -119 degrees or -139 degrees and a psi angle of either 113 degrees or 135 degrees. It also usually has a slight right handed curl and contains mostly valine, isoleucine, phenylalanine, or other hydrophobic amino acids. In addition, it is typically 7 residues long, is found in the core of folded polypeptides, and has its strands separated by about 3.5 angstroms. FTP, name this secondary structure of proteins that can be parallel or antiparallel and which is not an alpha helix.

Answer: beta sheet (accept: beta strand or beta pleated sheet)

12. A road named for this man extends from Ledo, Assam, to east Myanmar where it joins the Burma road. This native of Palatka, Florida graduated from West Point in 1904 and became a military attache to the U.S. Embassy in Peking in 1932. In 1941 he became the U.S. military representative in China and during the Burma counter-offensive he was the commander of U.S. forces in China. FTP, name this Chief of Staff to Chiang Kai Shek, considered to be the foremost military expert on China. often nicknamed "Vinegar Joe".

Answer: Joseph Stilwell

13. The pediment statues are the work of Giovanni Battista Albanese while those on the stairs were crafted by Lorenzo Robini. The columns are in the Ionic style and have an exact 1 to 10 ratio of their diameter to height. Overlooking the Bacchiglione River and commissioned by Paolo Americo for entertainment purposes, it served as the inspiration for Boyle's "Chiswick House" and for Monticello as well. It was considered revolutionary at the time, partly because of the four entrances, one on each side, rather than the standard two. FTP, name this building whose plan was a circle within a square, designed by Andrea Palladio.

Answer: Villa Rotonda or Villa Capra (accept: Villa Americo before Americo is mentioned)

14. D.H. Lawrence translated some of his works into English and Luchino Visconti's landmark 1948 film "The Earth Trembles" was based on one of his novels. He referred to some of his early works, such as "Eva", "Eros", and "The Royal Tigress" as novels of "elegance and adultery." Later works, such as "I Malavoglia" and "Mastro-Don Gesualdo" are considered masterpieces of the Verismo school. FTP, name this Italian short story writer and novelist who wrote the play upon which Pietro Mascagni's "Cavalleria Rusticana" is based.

Answer: Giovanni Verga

15. This can be accomplished through polyploidy as seen in the species of sunflower *Tragopogon*. In animals, it is more often accomplished via habitat selection, as seen in the picture-winged fruit fly. The fly

had been feeding on hawthorn berries when a few accidentally laid their eggs on the apples of a newly-planted orchard. Those eggs growing up on the apples then learned to eat apples, and two reproductively isolated species were formed. FTP, name this type of speciation which occurs even though there is no physical separation, as opposed to allopatric speciation.

Answer: sympatric speciation (prompt on early speciation buzz)

16. The name's the same: one was a son of Ares and a Thracian king who fed his horses flesh and was in turn fed to them by Heracles. The other was the son of Tydeus and king of Argos. He slaughtered Rhesus and his Thracians, wounded Aphrodite, helped to steal the Palladium, and exchanged armor with Glaucus, a swap now named for him. FTP, name this Greek hero who also fought personal combat with Hector and Aeneas, and who managed to wound Ares.

Answer: Diomedes

17. His *The Humorists*, a satire of vices, failed because the public didn't care for satire at the time, while *Bury Fair* and *The Scowlers* were also met with little fanfare. Among his earlier plays are *The Sullen Lovers*, which satirized Robert and Edward Howard, as well as *The Royal Shepherdess* and *The Libertine*. It was around 1678 that he espoused the Whig cause and fell out of favor with John Dryden. FTP, name this man who succeeded Dryden as poet laureate and who may be best remembered for being the butt of Dryden's satire *MacFlecknoe*.

Answer: Thomas Shadwell

18. People who have tried to imitate him include Frank Zander, Reniq, and Peter Orloff. Some of his albums include "Out of the Dark (Into the Light)" as well as "The Final Curtain". He was born Johan Honzel in 1957 and the www.stiffs.com entry for his 1998 demise says, "Don't turn around (oh OH oh), there's a bus coming you idiot." FTP, name this megachump from Austria who sang such songs as "Rock Me Amadeus" and "Der Kommissar".

Answer: Falco

19. The simplest of these theories states that every boson has a corresponding fermion partner and vice versa. The boson partners have names beginning with s such as selectron and squark while the fermion partners of existing bosons end in "ino" such as gluino and photino. The infinities that cause problems in relativistic quantum field theories are less severe in these theories because the infinities of bosons and fermions can cancel each other out. The idea of strings with this may be the best approach to unifying the four fundamental interactions. FTP name these "super" theories.

Answer: supersymmetry

20. His most ambitious scheme was the establishment of provincial assemblies, one whose functions should be the apportionment of taxes. However, this scheme was a disaster and his retrenchments were hateful to the Queen. His famous 1781 "Compte Rendu" caused him to get canned and he retired to Geneva. However, he was recalled in 1788 when he recommended that summoning of the Estates General. FTP name this father of Madame de Staél, a politician and financier whose dismissal sparked the public outcry that ultimately led to the storming of the Bastille.

Answer: Jacques Necker

21. The artist of this work said he was trying to capture a peculiar human condition: "the lonely crowd." The central figure was inspired by the old woman to the left in Louis Le Nain's "Peasant Family", and the work overall shows some of the effects of Haussmannization, which was the transformation of Paris into a modern city, especially via transportation. The triangular composition of the three figures closest to the viewer suggests an academic aspect, while the child leaning on the old woman gives the work a touch of emotion. FTP name this painting by Daumier.

Answer: The 3rd Class Carriage

22. This act was upheld in the 1947 Supreme Court case of *United Public Workers v. Mitchell* by a 4-3 vote. Several members of executive agencies sought a declaratory judgment of this act and, in dissent, Hugo Black bitterly attacked it as depriving several million people of their rights to freedom of speech and political participation. Passed in 1939 and amended in 1940, this is, FTP, what act that made it unlawful for

any employee who is paid by the government to join an organization advocating the overthrow of the constitutional government?

Answer: Hatch Act

23. This economist, who served briefly as minister of finance in 1919, argued in one of his major works that a populous is entitled to define itself, so that the segregationist South should not be considered undemocratic. His economic theories, seen in such works as *History of Economic Analysis* and *Business Cycles*, include the notion that capitalism will eventually perish due to its own success. FTP, name this Moravian-born author of *Capitalism, Socialism, and Democracy*.

Answer: Joseph Alois Schumpeter

Bonus Questions

1. Name these eponymous things from molecular biology FTPE:

- a) These are the units used in a genetic map. They were named by Sturtevant in honor of his teacher, a pioneer in genetics through his study of the fruit fly.

Answer: centimorgans (accept morgans)

- b) These are short segments of DNA produced by the discontinuous replication elongating in the 5 prime to 3 prime direction away from the replication fork.

Answer: Okazaki fragments

- c) This sequence, abbreviated S-D, is an upstream indicator in prokaryotes that tells the DNA polymerase where to begin replication.

Answer: Shine-Dalgarno sequence

2. Identify these literary architects FTPE:

- a) *The Fountainhead* tells of the struggles of this genius architect, supposedly based on Frank Lloyd Wright. Answer: Howard Roark

- b) This is the master builder in Ibsen's *Master Builder*.

Answer: Halvard Solness

- c) This architect is both the rival and friend of Billy Brown in "The Great God Brown".

Answer: Dion Anthony

3. There was a time when rivers used to be filled with things other than mob informants. Name these European rivers which were the sites of battles in WWI 15-5:

- a) (15) This river was the site of two battles in WWI: one in 1914, the other in 1918. The one in 1914 involved a rush by the First German Army under Kluck.

- (5) The French army responded by cutting off the Second and Third German Armies. French reinforcements were brought from Paris via taxicab.

Answer: Marne

- b) (15) This river was also the site of 2 battles, in 1916 and 1918. The one in 1916 was a combined assault by French and British troops under Ferdinand Foch.

- (5) The battle raged over 10 weeks and on July 1, the British suffered 57,000 casualties, the most ever suffered by a British army in one day.

Answer: Somme

4. Name these works by Diego Velázquez from descriptions F15PE:

- a) Among the figures in this 1656 work are the Infanta, a couple of dwarfs kicking a dog, and the painter himself, emblazoned with a symbol showing his knighthood. He was knighted long after the painting was completed, and went back and put the symbol in the painting.

Answer: Las Meninas or The Maids of Honor

- b) This 1635 masterpiece shows the capitulation of the Dutch to the Duke of Alba. It is remarkable for the mass of lances being held upwards and for its representation of gentlemanly conduct.

Answer: Surrender at Breda (accept: The Lances)

5. Answer these questions about the geography of India FTPE:

- a) This desert, also known as the Great Indian Desert, is a sandy region of northwest India and southeast Pakistan between the Indus and Sutlej river valleys.

Answer: Thar desert

- b) This is the name given to a plateau of south-central India between the Eastern Ghats and Western Ghats. It is also used to name the entire Indian peninsula south of the Narmada River.

Answer: Deccan

- c) This city, the capital of Tamil Nadu State in southern India, is India's fourth largest. It is situated in the northeastern corner of the state on the Coromandel Coast of the Bay of Bengal.

Answer: Madras

6. Answer these questions about the Krebs cycle FTSNOP:

a) (5): The Krebs cycle is usually called by this name by biochemists. The name derives from the first compound created in the process.

Answer: citric acid cycle (accept: citrate cycle).

b) (15): Pyruvate from glycolysis is turned into this compound which is the first compound to enter into the citric acid cycle.

Answer: acetyl coenzyme A or acetyl CoA

c) (10): The conversion of succinyl-Co-A to succinate results in the formation of this energy rich compound. Answer: Adenosine TriPhosphate

7. Answer the following questions about a certain political movement FTPE:

a) This movement derived its name from the pen name taken by its founder while he was writing in prison. It was composed of the extreme radical left wing of the Social Democratic Party in Germany and violently opposed WWI. It also led an uprising in 1918.

Answer: Spartacist or Spartacus League

b) This is the man who wrote under the pen name Spartacus. He was the only member of the Reichstag to oppose WWI and was shot on his way to prison after a Spartacist uprising in 1919.

Answer: Karl Liebknecht

c) This woman, along with Liebknecht, helped to found the movement. She espoused revolutionary mass action and was shot in 1919 as well.

Answer: Rosa Luxemburg

8. Given a description of a Brahms work, name it FTPE:

a) This work, Opus 80, contains the student songs "We have built a stately mansion", "The Land Father", "What comes from afar" and "Therefore let us rejoice". It was written to celebrate the honorary PhD conferred to him.

Answer: Academic Festival Overture or Akademische Festouvertüre

b) This group of 21 pianoforte duets was published in 4 volumes between 1852 and 1869. Some were arranged for orchestra by Brahms and some are in Gypsy style.

Answer: Hungarian Dances

c) This work, a concert overture, was opus 81. It was composed in 1880 as a companion piece to the Academic Festival Overture

Answer: Tragic Overture or Tragische Ouvertüre

9. Name these Biblical women from art clues F15P each:

a) (15): In the back of Caravaggio's "The Deposition", she throws her hands up in agony. Donatello also made a famous 1444 sculpture of her out of wood.

Answer: Mary Magdalene

b) (15): According to the title of a 1626 Rembrandt painting, she was accused by Tobit of stealing a goat.

Answer: Anna

10. For 10 points each answer these related questions

a) This is the name given to two relatively small irregular galaxies that are close neighbors of our galaxy. They are only visible from the Southern Hemisphere and they were first recorded in 1519.

Answer: Magellanic Clouds

b) The Magellanic Clouds are enveloped in a common cloud of a cool, neutral form of this element.

Answer: hydrogen

c) If the Galaxy has a massive one of these, then the Magellanic Clouds are bound as satellites and have probably made several close approaches. One of these would be a region around our Galaxy that contains matter that is undetectable except by its gravitational effects.

Answer: Dark halo (prompt on "dark matter")

11. Name the Gogol works, for 10 points each:

a) This work concerns Chichikov and his wacky scheme to buy up all the serfs who have died since the last census was taken.

Answer: Dead Souls

b) The title character of this novella is a Cossack who joins in the fight against the Poles. He kills his traitorous son Andri but he and his other son Ostap are both captured and tortured to death.

Answer: Taras Bulba

c) The title object in this story is bragged about at a party of military men by Phythagoras Phytagorasovich who invites the soldiers to a party to see it. When they come, he isn't ready and hides in it rather than show his face to them. They find him in it and say "Oh, there you are" and go away.

Answer: The Carriage

12. Answer these questions related to that movement infinitely cooler than the hippies, the Beat Generation FTPE:

a) In 1953, Lawrence Ferlinghetti opened this bookshop in San Francisco.

Answer: City Lights Bookstore

b) Perhaps Ferlinghetti's best-known collection of verse, this volume was published in 1958 and contains the notable verse "Autobiography".

Answer: A Coney Island of the Mind

c) This man, portrayed as Japhy Ryder in Kerouac's "Dharma Bums", was awarded the Pulitzer Prize for poetry in 1974 for his "Turtle Island".

Answer: Gary Snyder

13. Answer the following relating to the New Deal, for 10 points each.

a) This act, the first to be passed, was designed to pay farmers for accepting government controls and to cut down on crop surpluses.

Answer: Agricultural Adjustment Act

b) This act, passed in 1933 and also known as the Banking Act, gave the Federal Reserve Board control over interest rates and loans and limits mergers between banks and investment houses.

Answer: Glass-Steagall Act

c) This man played many important roles in FDR's government: he headed the WPA from 1935 to 1938, served as Secretary of Commerce from 1938-1940, and was the supervisor of the Lend-Lease program in 1941.

Answer: Harry Hopkins

14. Identify the following things from chemistry which start with the letter H, for 10 points each:

a) This equation is used to find pH and states: pH equals Pka plus the log of the concentration of the salt divided by the concentration of the acid.

Answer: Henderson-Hasselback equation

b) This law states that at a sufficiently high dilution in a liquid solution, the fugacity of a non-dissociating solute becomes proportional to its concentration.

Answer: Henry's Law

c) This acid is the only acid containing a single hydrogen and a single halide that is not a strong acid.

Answer: hydrofluoric

15. Who could forget those classic Godzilla movies? Name these opponents of that overgrown lizard

FTSNOP:

a) (5): This was among the earliest of Godzilla's opponents. In one scene toward the end, Godzilla is forced to battle giant twin caterpillars spawned by this creature.

Answer: Mothra

b) (5): An enemy from space builds this monstrosity which he uses to try to take over the world in a 1975 film.

Answer: Mechagodzilla

c) (10): In a 1966 film, Godzilla must take on this gigantic rotten-looking crab thing.

Answer: Sea Monster

d) (10): Perhaps the most amusing of all of Godzilla's opponents is this....thing. It is best described as an amorphous, pollution belching monstrosity spawned by the excesses of industrial waste.

Answer: Smog Monster

16. Even if you weren't stationed in D'Nang, you should still be able to name these Vietnamese dudes FTPE: a) For his actions as leader of the Vietnamese delegation to the Paris Conference of Indo-China, this man was awarded the 1973 Nobel Peace Prize with Henry Kissinger.

Answer: Le Duc Tho
b) He founded the Indo-Chinese Communist Party in 1930 and served as head of North Vietnam from 1945-1969.

Answer: Ho Chi Minh
c) This former emperor of Vietnam led the independent state declared by Japan in 1945 and led the provisional government in 1948. He was deposed in 1955.

Answer: Bao Dai

17. Name these things related to Indian fighters from American History FTPE:

a) This man commanded the American forces at the lopsided victory at Fallen Timbers.

Answer: "Mad" Anthony Wayne
b) This Indian Chief led the Miamis into battle. In 1790 he gave General Josiah Harmar an old-fashioned thrashing.

Answer: Little Turtle
c) The following year, this man, governor of the Northwest Territory, got an even worse whipping from Little Turtle than Harmar received.

Answer: Arthur St. Clair

18. Identify these things related to Thomas Eakins FTPE:

a) This work, Eakins' most famous, depicts a member of the staff at the Jefferson Medical College. The College, who had commissioned it, rejected it and it was instead displayed at an Army hospital.

Answer: The Gross Clinic
b) This Eakins work shows one of Eakins' heroes. It depicts a sculptor creating a sculpture based on a nude woman who stands in the center of the painting. Off to the right sits a chaperone knitting.

Answer: William Rush Carving His Allegorical Figure of the Schuylkill River
c) Eakins drew the inspiration for his exposure photograph series "Pole Vaulter" on this Englishman's similar wet-plate photography of a horse running entitled "Sally Gardner Running at a 1:40 Gait, June. 1878".

Answer: Eadward Muybridge

19. Name these concepts important in biochemistry for 15 points each:

a) This law states that the absorption of light by a solution changes exponentially with the concentration.
Answer: Beer's Law

b) This type of plot is helpful for visualizing the action of an enzyme. It is accomplished by taking the reciprocal of both sides of the Michaelis-Menten equation and plotting it.

Answer: Lineweaver-Burke plot

20. Identify these people from Dante's *Inferno* FTSNOP:

a) (5 each): There two lovers are the wife and brother of Giancotto.

Answer: Paolo and Francesca da Ramini
b) (5 each): This count, as well as two of his sons and grandsons, were starved to death in prison. Name that man and the archbishop who caused him to starve to death, both of whom are found in the penultimate canto.

Answer: Count Ugolino della Gherardesca and Archbishop Ruggieridegli Ubaldini
c) (10) This man is in the black mouth of Dis, which is on the face on the left.

Answer: Brutus