

1998 Princeton BuzzerFest II
Round 4 Tossups by JHU Bird on a Wire

1. This process can be accomplished using packed tower columns or rotating disk contactors, and the various streams involved include the solvent, raffinate and feed. The object is to achieve a high rate of mass transfer by maximizing contact between the phases. It can be used for processes for which the boiling points of two liquids are too close for distillation, and requires that one component has different solubility properties. FTP, name this process that can be performed in a laboratory using a separatory funnel.

Answer: _EXTRACTION_

2. In the words of its author, the most important character is Tiresias, who "although a mere spectator", unites the rest. Opening with a quote from the Satyricon of Petronius, its five sections are "A Game of Chess", "Death by Water", "The Fire Sermon", "The Burial of the Dead" and "What the Thunder Said". It was dedicated to Ezra Pound, who edited FTP, what poem by T.S. Eliot?

Answer: _THE WASTE LAND_

3. Prince Rupert's Land was the original name given to the area whose rivers drained into this body of water, whose outlets include the Foxe Channel to the north, and a namesake strait which empties into the Atlantic Ocean. It was named after an explorer whose ship was called "Discovery", and was thought to be part of the Northwest Passage, but instead ended up being a dead end. FTP, name this large bay in Canada.

Answer: _HUDSON BAY_

4. 27 men died during its construction, including its designer. His son, Washington, took over as chief engineer, and suffered a crippling attack of the bends at the construction site, though he continued to direct operations by sending messages to the site through his wife, Emily. FTP, name the landmark designed by John A. Roebling that was the first suspension bridge built of steel wires instead of iron, located in New York City.

Answer: _BROOKLYN BRIDGE_

5. Instead of a fiddle and a whip, he was what the father brought back from the trip to Liverpool. On his first night at the house, he was left out on the landing by Ellen Dean in the hopes that he would be gone by morning. This was just the first in a series of abuses, especially from Hareton, that eventually led to his seeking revenge. FTP, name this love of Catherine Earnshaw, one of the main characters in Emily Bronte's Wuthering Heights.

Answer: _HEATHCLIFF_

6. Among his lesser known accomplishments include teaching pigeons to play table

tennis, and he also invented the Air-Crib, a large, soundproof, germ-free, air-conditioned box designed to serve as a mechanical baby tender to provide optimum child growth during the first two years of life. He also wrote many books, including the controversial "Beyond Freedom and Dignity" and "Walden Two". FTP, name this psychologist noted for his work in behaviourism.

Answer: Burrhus Frederic _SKINNER_

7. The story first appeared in serialized form in the Saint Nicholas magazine and was titled after the main character. It was so successful that the author wrote an extended version of the story about Miss Minchin's seminary and the little girl who lived there. FTP give name the book which has been made into several movies, the most famous of which starred Shirley Temple as Sara Crewe.

Answer: The _LITTLE PRINCESS_

8. As well as a composer, he was also one of the most influential teachers of the 20th century, and among his most significant pupils were Alban Berg and Anton Webern. He wrote musical textbooks, and was the first to put a vocal part in a string quartet: the line "I feel air from another planet" in his Second String Quartet, which was also his first work that attempted to transcend tonality. FTP, name this composer who is credited with inventing the 12 tone technique.

Answer: Arnold _SCHOENBERG_

9. Only 15 of a possible 256 of these are valid from a hypothetical viewpoint, though 9 additional forms are valid provided an existential supposition. Constructed from categorical sentences, they can be evaluated using Venn diagrams. FTP, name this group of 3 statements in which the first two may or may not imply the third.

Answer: _SYLLOGISM_

10. He had 44 goals and 71 assists in 58 games last season with the Rimouski Oceanic before playing for Canada at the World Junior Championship. The first player from the QMJHL to be drafted #1 since Alexander Daigle in 1993, he just signed a three year deal that will make him the richest rookie in NHL history. FTP, name this Tampa Bay Lightning player that has been touted as the next Mario Lemieux.

Answer: Vincent _LECAVALIER_

11. It had a serial number of AS13486, and was highly rated in the December 1963 issue of Consumer Reports. Purchased from the Peacock Jewelry Company on Elm St, it was loaded with Kodachrome II safety film, the first few scenes of which were filled with family scenes. It also shows footage of other people standing in Dealey Plaza that day, though the person of most interest was just driving through. FTP, name the camera which showed in vivid detail the assassination of President Kennedy.

Answer: _ZAPRUDER_ Film

12. The appendix to this book, published 16 years after the novel, contains a fifth attempt to tell the story which the author describes as his "most splendid failure". Among the characters introduced in the appendix are Ikkemotubbe, or Doom, an Indian chief who loses his land to the Compson family. The parts of the story are narrated from the points of view of Jason, Quentin and Benjy, the latter of whom is an idiot. FTP, name this work by William Faulkner.

Answer: The _SOUND AND THE FURY_

13. Formed in 1913, its members included Lawrence Harris, Arthur Lismer, Franklin Carmichael, and Alexander Young. Trying to create a national style, they were mainly known for their landscape paintings, particularly of the Northern Ontario wilderness. FTP, name this group of Canadian painters whose more famous members include J.E.H. McDonald and A.Y. Jackson, as well as Tom Thompson, who died in a mysterious boating accident in 1917.

Answer: _GROUP OF SEVEN_

14. In his early 20's he worked as an assistant to the New Jersey Quaker Benjamin Lundy, the publisher of the *Genius of Universal Emancipation*, but he soon grew frustrated with his employer's moderate tone. FTP, what abolitionist expressed his radical criticisms of gradualism and colonialism in his own publication *The Liberator*?

Answer: William Lloyd _GARRISON_

15. A vaccine that gives protection against the type b strain of *Haemophilus influenzae* became commercially available in the 1980s, which is the primary cause of this disease in infants and children. For adults, *Streptococcus pneumoniae* is a major cause when it is carried through the bloodstream from the nose and throat to infect the arachnoid, dura mater or pia mater. FTP, name this potentially deadly disease that can be diagnosed from the presence of bacteria in cerebrospinal fluid.

Answer: _MENINGITIS_

16. Although its exact location is not known with certainty, one hypothesis has it at a place now called the Grotto of the Agony, near a bridge that crosses the Kidron Valley. Its name comes from the Hebrew for oil press, which leads many churches to accept its location as an olive grove on the western slope of the Mount of Olives. FTP, name this garden where Jesus prayed and was betrayed on the night that he was arrested before Crucifixion.

Answer: _GETHSEMANE_

17. Born in Boston in 1836, this artist first achieved recognition during the civil war with his depictions of everyday camp life, which he submitted to Harper's Weekly. This experience also led to the painting "Prisoners From the Front". Later works include "Snap the Whip", but it was for his depictions of seascapes that he is best known. FTP, name the painter of "Fog Warning" and "The Gulf Stream"

Answer: Winslow _HOMER_

18. May 21, 1999 is when The Phantom Menace will come. Nuna and Peko Peko are two Naboo swamp-dwelling creatures that will make an appearance alongside Ian McDiarmid, Natalie Portman, Liam Neeson and Ewan McGregor. FTP, name this movie which will likely show Senator Palpatine's rise to power, an occurrence in which he will probably be aided by Anakin Skywalker.

Answer: _STAR WARS_: Episode One

19. Among his creations were the twin spirits Spenta Mainyu and Angra Mainyu, also known as Ahriman. The former was beneficent, choosing truth, light, and life, while the latter was destructive, choosing deceit, darkness, and death. He was worshipped by Darius I and other Persian kings as the greatest of all gods and protector of the just king. FTP, name this chief god of Zoroastrianism.

Answer: _AHURA MAZDA_

20. Its units are measured in kilograms per meter per second squared, and for a fluid, it can be measured as the product of density, acceleration due to gravity and height, which gives the basis for Bernoulli's equation. Pascal's principle states that it is transmitted undiminished through an incompressible fluid, which allows the operation of hydraulic lifts. FTP, name this quantity that can be measured by a manometer, barometer, or tire gauge, and is probably what your feeling right now if you have answered the question yet.

Answer: _PRESSURE_

21. Among its film adaptations include a 1925 version starring Lon Chaney and Mary Philbin, a 1989 version starring Robert Englund and Jill Schoelen, and an upcoming version starring Julian Sands and Asia Argento as the title character and Christine Daae. FTP, name this work based on a novel by Gaston Leroux and the title of a musical from Andrew Lloyd Webber.

Answer: The _PHANTOM OF THE OPERA_

22. This country contains Europe's largest glacier and is one of the most geologically active areas on Earth. Settled first by Irish monks and later colonized by Vikings, this nation is home to the world's oldest parliament, the Althing. FTP, name this island nation whose population of 250,000 is mainly clustered around the geothermally heated capital

of Reykjavik.

Answer: _ICELAND_

23. This church season begins on the Sunday nearest the feast of St. Andrew's the Apostle. It traditionally marks the beginning of the ecclesiastical year in Western churches, and was probably adopted by the church as a liturgical ceremony in the 6th century. FTP name this four week period, often referred to as "the Christmas Lent" in medieval times, and which occurs in December.

Answer: _ADVENT_

24. This methodology reached its zenith in the works of Karl Popper. In order to find objective truth, which it considers the main goal of science, any theory that is put forward must be subjected to rigorous objective tests in the hope that if the theory is false, then the tests will prove it so. FTP, name this methodology, in which scientist try to prove themselves wrong; if they cannot, then the theory is considered to be valid

Answer: _FALSIFICATIONISM_

25. He presented the dynamical theory of heat, developed theorems for the mathematical analysis of electricity and magnetism, and investigated hydrodynamics, particularly wave-motion and vortex-motion. He also helped to develop the law of the conservation of energy. If he had not been made a peer in 1892, scientists might be measuring absolute zero as zero degrees Thompson. FTP name him.

Answer: Lord _KELVIN_ (accept William Thompson)

26. All hallucinatory drug demands set aside, toad-licking never really caught on in the United States. But kings in this culture liked to tote around the marine toad Bufo Marinas in their hip pouches for use in case of emergency. FTP, name this culture which for all intents and purposes disappeared around 1000 A.D. and whose cities included Uxmal, Caracol, and Chichen Itza.

Answer: _MAYA_

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1. Ismail Merchant and James Ivory have achieved success by adapting novels for the big screen. FTP each, give the author of the following works that have been adapted by Merchant and Ivory.

- A) The Bostonians Answer: Henry _JAMES_
B) Maurice Answer: E.M. _FORSTER_
C) The Remains of the Day Answer: Kazuo _ISHIGURO

2. Given a biological polymer, name its monomeric unit FTP each.

- A) Microfilament Answer: _ACTIN_
- B) Cellulose Answer: _GLUCOSE_
- C) Microtubule Answer: _TUBULIN_

3. A number of notable women's rights firsts in American History were made by women in one family. Name them FTP each.

A) In 1847, she was the first Massachusetts woman to earn a college degree, and her speech at a women's rights convention at Worcester, Massachusetts won over Susan B. Anthony to the cause. She is famous for keeping her own name after marriage and protesting against contemporary marriage laws.

Answer: LUCY STONE

B) Lucy's sister-in-law was also a pioneer, becoming the first woman of modern times to enter and graduate from medical school became the first female physician listed in the Medical Register of the United Kingdom.

Answer: Elizabeth BLACKWELL

C) Yet another sister-in-law also entered the history books when she was allowed ordination by the First Congregational Church becoming the first woman minister in an established Protestant denomination, though she soon resigned to become a Unitarian minister.

Answer: ANTOINETTE BLACKWELL

4. Answer the following questions about an event that happened on Christmas Day, AD 800 for the stated number of points.

A) F5P, who was crowned the first Holy Roman Emperor on that date?

Answer: _CHARLEMAGNE_

B) FTP, name the pope that crowned Charlemagne.

Answer: _LEO III_

C) F5P, Charlemagne was the second ruler of this dynasty.

Answer: _CAROLINGIAN_

D) Finally, FTP, this man, Charlemagne's father, was the first ruler of the Carolingian dynasty.

Answer: _PEPIN III_ (or the _SHORT_)

5. Name these characters from the novels of Joseph Conrad for the stated number of points.

A) F5P. He was the mysterious ivory dealer in "Heart of Darkness"

Answer: KURTZ

B) FTP. This title character was first mate on the Patna, a pilgrim carrying ship which is abandoned by its officers when it threatens to sink.

Answer: _LORD JIM_

C) F15P. The title character of this book, subtitled "A Tale of the Seaboard" was inspired by a Corsican named Dominic Cervoni, and the events seem to be based on Conrad's memories of sailing along the coast of Venezuela.

Answers: _NOSTROMO_

6. Answer the following questions about the a Chinese dynasty for the stated number of points.

A) F5P, name this dynasty which lasted from 206 BC to AD 220, considered to be the prototype for all later Chinese dynasties.

Answer: _HAN_ dynasty

B) FTP, the founder of the Han dynasty, Liu Pang, led a revolt against this oppressive practices of this short-lived dynasty immediately preceding the Han.

Answer: _CH'IN_ dynasty

C) F15P, the Han dynasty is divided into an early and late phase by this period featuring the struggles of Cao Cao, Liu Bei and Sun Quan.

Answer: _THREE KINGDOMS_ period

7. Answer the following questions about John Keats for the stated number of points.

A) F5P. In his life, Keats mastered many poetic forms, including this one, for which he wrote one "To Psyche", "On Melancholy" and "To Autumn".

Answer: _ODE_

B) FTP. His first mature work was a sonnet inspired by this man's translations of the Iliad and the Odyssey

Answer: George _CHAPMAN_

C) F15P. After Keats developed tuberculosis in 1820, he was ordered south in the winter. Accompanied by the artist Joseph Severn, he eventually died in what ancient city.

Answer: _ROME_

8. Answer the following questions about chemical kinetics for the stated number of points.

A) First, F5P, in this type of reaction, the rate is independent of the concentrations of the reactants.

Answer: _ZERO ORDER_

B) FTP, this is the term for the energy that is required to initiate a chemical reaction.

Answer: _ACTIVATION_ energy

C) Finally, F15P, this equation, named after a Swedish chemist, is used to find the relationship between the activation energy and the rate constant.

Answer: _ARRHENIUS_ equation

9. Answer the following questions about the geography of Hades for the stated number of points.

A) F5P. Souls entering Hades had to be ferried across this river by Charon.

Answer: _STYX_

B) FTP. Only the most blessed souls were allowed into this area of Hades.

Answer: _ELYSIUM_ (or Elysian Fields)

C) F15P. According to Plato, souls that be about to be reincarnated had to drink from this river of oblivion.

Answer: _LETHE_

10. Science fiction is the exploration of what humankind would be like under different conditions, so its no surprise that authors have come up with various religions and philosophies. Name the author who thought up these religions or philosophies:

A) F5P. The Foundation.

Answer: Isaac _ASIMOV_

B) FTP. Bene Gesserit.

Answer: Frank _HERBERT_

C) F15P. Speakers for the Dead.

Answer: Orson Scott _CARD_

11. 30-20-10 name the author from works

30: Coming Through Slaughter, Tin Roof, Rat Jelly

20: The Dainty Monsters, Elimination Dance, Secular Love

10: The Collected Works of Billy the Kid, The English Patient

Answer: Michael _ONDAATJE_

12. Given the origins of the name of an art movement, name it FTP each.

A) From a French word for a fanciful rock or shell design.

B) From the French for "hobbyhorse".

C) From the French for "wild beast".

Answers: a) _ROCOCO_ b) _DADA_ism c) _FAUVISM_

13. There's nothing like a good ending to a piece of music. Answer the following questions about cadences for the stated number of points.

A) F5P, probably the most satisfying type of cadence, it proceeds from the dominant to the tonic.

Answer: PERFECT or AUTHENTIC

B) FTP, although sometimes classified under the perfect cadence, this type has the subdominant as the penultimate chord, followed by the tonic.

Answer: PLAGAL

C) F15P, this "tricky" kind of cadence uses a substitute, such as the submediant, in place of the tonic, leading the listener unsatisfied until the real perfect cadence is played.

Answer: DECEPTIVE

14. Name the capitals of these "royal" places for the stated number of points.

A) Louisiana

Answer: BATON ROUGE

B) Prince Edward Island

Answer: CHARLOTTETOWN

C) Queensland

Answer: BRISBANE

15. Answer the following questions about muscle contraction FTP each.

A) Muscle contraction is stimulated by the release of this divalent cation into the cytoplasm.

Answer: CALCIUM

B) In human muscle cells, calcium is released from these membranous structures similar to the endoplasmic reticulum.

Answer: SARCOPLASTIC RETICULUM

C) This is the basic contractile unit in striated muscle cells.

Answer: SARCOMERE

16. Ah... The joys of watching a baseball game indoors... I mean outdoors... I mean indoors... For the stated number of points, answer the following questions about stadiums with retractable roofs.

A) These two stadiums, both in Canada, were the first to have a retractable roof. F5P each, name them.

Answer: _OLYMPIC_ Stadium _SKYDOME_

B) F5P, the only other stadium in North America currently with a working retractable roof, it is the home of the Arizona Diamondbacks.

Answer: _BANK ONE_ Ballpark

C) There are three other cities that will have stadiums with retractable roofs by the year 2000. You will get 15 points for 2 of the cities, 5 for one.

Answer: _SEATTLE_, _MILWAUKEE_, _HOUSTON_

17. On March 5th, 1998, President Clinton signed into law Senate Bill Number 927. The bill itself re-authorizes the Sea Grant Program, but a line item entered in the Bill makes another freshwater lake one of The Great Lakes.

A) F5P, what lake became the new Great Lake?

Answer: Lake _CHAMPLAIN_

B) F5P each name the Senator who added the line item specifying Champlain's classification as a Great Lake and the state he represents.

Answers: Patrick _LEAHY_, _VERMONT_

C) F15P, name one of Vermont's four principal rivers that flows into Lake Champlain.

Answers: _OTTER CREEK_, _LAMOILLE_, _MISSISQUOI_, _WINOOSKI_

18. Forget electricity, magnetism and thermodynamics. Everyone knows that the only fun physics is Newtonian mechanics. Answer the following questions for the stated number of points.

A) F5P. This force occurs perpendicular to the surface on which an object is resting. If an object is lying on a flat table, it has an equal magnitude but opposite direction than the gravitational force.

Answer: _NORMAL_ force

B) The normal force is used to calculate the force of friction by multiplying it by a constant. F5P each, what are the two different kinds of friction that an object can experience by the normal force?

Answer: _STATIC_ and _KINETIC_ friction

C) (Pencil and paper might be helpful) Finally, F15P, how much energy is lost to

friction if a 1kg block is dragged for a distance of 2 metres over a table. The coefficient of kinetic friction is 0.5 (allow 10 seconds)

Answer: 9.8 JOULES (also accept 10 joules, if they assume g to be 10)

19. Answer the following about a famous gem for the stated number of points.

A) F5P name the famous cubic zirconia that passed for a large heart shaped blue diamond given to Kate Winslet's character by Billy Zane's in the recent movie Titanic.

Answer: HEART OF THE SEA (or Coeur de la Mer)

B) The first official copy is more valuable than the original because it uses real diamonds in a platinum setting and a 121 carat Sri Lankan Blue Sapphire, since it was difficult to find a blue diamond of the right size. FTP name the jewelers that rushed to finish the piece for Oscar night, when Celine Dion wore it.

Answer: Royal ASPREY'S of London

C) The original was auctioned off in Beverly Hills for a cool \$3 million, with the proceeds going to The Princess Diana Memorial Fund. But if you really had your heart set on your own, you can order it from this catalog for \$200. F15P name the upscale catalog company that has exclusive rights to market reproductions.

Answer: J. PETERMAN

20. In non-election years incumbent politicians lead a quieter life, unless of course they are immersed in scandal. FTP each, given a state, name the governor who, depending on who you talk to, may or may not be involved in scandal.

A) Michigan Answer: John ENGLER

B) North Dakota Answer: Edward SCHAFER

21. Name the following "Hungarian" composers from works FTP each.

A) Hungarian Dances Answer: Johannes BRAHMS

B) Hungarian Rhapsodies Answer: Franz LISZT

C) Duke Bluebeard's Castle Answer: Bela BARTOK

22. Name the following branches of philosophy FTP each.

A) This branch deals with the origin, nature, and limits of human knowledge.

Answer: EPISTEMOLOGY

B) This branch of philosophy deals with determining the fundamental nature of reality.

Answer: METAPHYSICS

C) This philosophical branch examines nature of beauty, art, and taste.

Answer: AESTHETICS

23. P.T. Barnum popularized many people in 19th-century America. Identify the following F15P each.

A) This coloratura soprano went on to become a professor of singing at the Royal College of Music was known as the "Swedish Nightingale"

Answer: Jenny LIND

B) Although he was better known by his circus name, his real name was Charles Sherwood Stratton. Name this man who was 40 inches tall and weighed only 70 pounds.

Answer: GENERAL TOM THUMB

24. The latest statistics say that 3,000 Americans under 18 become habitual smokers each day despite the fact that 32% of smokers will die from smoking-related illnesses.

A) FTP name the agency that recently put out these statistics, a branch of the United States Public Health Service based in Atlanta.

Answer: Centers for Disease Control

B) The number of American youths taking up smoking as a daily habit jumped 73% between 1988 and 1996. This corresponds with the introduction of a popular spokes-cartoon. FTPE name the character and the company which he represented.

Answer: JOE CAMEL, R.J. REYNOLDS

25. 30-20-10 name the author.

(30) He wrote "The Gospel According to Jesus Christ" and "Blindness : A Novel"

(20) Other works include "The History of the Siege of Lisbon" and "The Stone Raft"

(10) He is the 1998 Nobel Laureate for Literature.

Answer: Jose _SARAMAGO_

26. There were originally five of them, and they characterized themselves as "the people of the longhouse". The Tuscarora joined in 1722, and thereafter they were known as the six nations. F5P each and 5 points for all correct, name the original five members of the Iroquois confederacy.

Answer: _MOHAWK_, _ONEIDA_, _ONONDAGA_, _CAYUGA_, _SENECA_