Princeton University Buzzerfest Resurrection: Episode IV, A New Hope

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Packet by Carleton (Will Cavert, Shane Ewert, Gabe Lyon, and Ted Salk)

Tossups

1. He coined the word "fluorescence" and was the first since Isaac Newton to become both Lucasian professor of mathematics and secretary and president of the Royal Society. Working with viscous fluids in the 1840s, he deduced a law that would help determine the charge on a single electron in Millikan's oil-drop experiment. FTP, name this physicist whose relation of a surface integral over a surface to a line integral around the boundary curve of the surface is a higher-dimensional version of Green's Theorem.

ANSWER: George Gabriel **Stokes**

2. Thanks to Richard Curtis, net proceeds from these two 64-page books, which had a combined first printing of at least 10 million copies, will go to a fund set up by Comic Relief to benefit the world's poorest children. HarperCollins is working for free on these titles, and their American publisher, Scholastic, has ensured that an estimated $3 of the $3.99 list price will go to Comic Relief from the 5 million copies that have been released. FTP, name these two newest guides to the world of Harry Potter.

ANSWER: *Quidditch Through the Ages* and *Fantastic Beasts and Where to Find Them*

3. One way to find it is by formulating a Diophantine equation with 17,000 variables and seeing whether there is a finite or an infinite number of solutions. Gregory Chaitin discovered it when he investigated Alan Turing's "halting problem" and confirmed the existence of a "halting probability" which turns Turing's question of whether a program halts into a real number between zero and one. FTP, name this infinitely long and utterly incalculable number not to be confused with the last letter of the Greek alphabet.

ANSWER: **omega**

4. Jaguars, often in jade but also in pottery or sculpture, were frequently depicted in such important ceremonial centers as Tres Zapotes, San Lorenzo, and La Venta. Massive public works projects indicate a highly stratified society, and archaeological evidence indicates that long distance trade spread this culture's influence throughout Mesoamerica from its heartland near modern Veracruz. FTP, name this civilization which flourished in Mexico from 1200 to 400 B.C.E, famous for its stone carvings of enormous heads.

ANSWER: **Olmec**

5. The Kozmic Blues Band, The Full Tilt Boogie Band, and Big Brother and the Holding Company all served as backup bands for her. In 1963 this native of Port Arthur, Texas, hitchhiked with Chet Helms to San Francisco, the city where she would later rise to stardom with her mixture of blues and psychedelic rock. FTP, name this singer of such hits as "Cry Baby," "Piece of My Heart," and "Me and Bobby McGee."

ANSWER: Janis **Joplin**

6. The title Phthirapteran is detested and shunned by both saint and sinner. It boldly sets its nose out at the narrator, who would expect to find it on an old-woman's flannel head-dress or on a boy's undervest, but not on "Miss's fine Lunardi." Subtitled, "on seeing one on a lady's bonnet in church," FTP, name this 1786 Robert Burns poem.

ANSWER: **"To a Louse"**

7. He first gained political prominence with his strong anti-socialist views, and his political career seemed to be over after electoral defeats in 1936. Though he had earlier served as a military attache to Russia, in 1939 he turned to a different ally, which invaded his homeland on April 9, 1940. Subsequently failing to hold the position of prime minister, he spent the rest of the war working with the German Reichskommissariat. FTP, the name of what Norwegian collaborator has thus become synonymous with traitor?

ANSWER: Vidkun **Quisling**

8. David Hume skeptically defined it as "the internal impression we feel and are conscious of, when we knowingly give rise

to any new motion of our body, or new perception of our mind." Kant conceived it as a capacity for autonomous legislation, and as a freely exercised executive, action-generating capacity. FTP, name this philosophical concept, which Schopenhauer associated with representation, and Leni Riefenstahl with triumph.

ANSWER: will

9. Among its rulers were Agron and Myrsus of the Heraclid dynasty, followed by Ardys, Sadyattes, and Alyattes of the Mermnad dynasty. The first ancient coins, which were made of electrum, were said to have been minted here, and Thales once accurately predicted a solar eclipse that prompted its people to call off their war with the Medes in 585 B.C.E. FTP, name this kingdom whose capital at Sardis became the chief administrative center in Asia Minor for the Persians in 546 B.C.E. when Cyrus II defeated Croesus.

ANSWER: Lydia

10. After witnessing the effects of poverty on his family, Jim Nolan joins the local communist party and is assigned to work with Mac, a veteran labor organizer and unscrupulous rabble-rouser. After the two befriend London, the leader of a group of apple-pickers, they all unite to start a strike that is viciously opposed by the orchard-owners. Seen as a predecessor to *The Grapes of Wrath*, FTP, name this stark 1936 novel by John Steinbeck, whose title comes from a bellicose passage in *Paradise Lost*.

ANSWER: In Dubious Battle

11. Subsidiary assumptions of this principal include that there is an equal segregation of alleles into heterozygous gametes, and that the loci are not sex-linked. Technically speaking, it can never be attained, since two of the major assumptions are false for all populations. However, mutation rates are often ignored, and a very large population size is often considered sufficient to say that this exists. FTP, name this equilibrium at the heart of population genetics.

ANSWER: Hardy-Weinberg equilibrium

12. Born in Allendale, South Carolina in 1930, this artist explored the relationships between painted illusion and real object, sometimes by labeling the colors in paintings like "False Start." His first one-man show in 1958 is often considered the beginning of the era of Pop Art, and along with Richard Rauschenberg, he is the most influential American artist who followed and reacted against Abstract Expressionism. FTP, name this artist whose works featured such objects as coat hangers, coffee cups, maps, and flags.

ANSWER: Jasper Johns

13. He once spoke of himself in a letter as an intellectual *Zwitterart* or "hermaphrodite." He also described himself as an amateur philosopher, yet published such influential critical essays as *On the Aesthetic Education of Man* and *On Naive and Sentimental Poetry*, both of which appeared in 1795 as installments in his short-lived magazine, *The Graces*. FTP, name this historian who, after leaving Jena, committed himself to drama with *Demetrius*, *The Bride of Messina*, *The Maid of Orleans*, *Maria Stuart*, and *William Tell*.

ANSWER: Friedrich von Schiller

14. Herodotus notes that she was called Mylitta by the Assyrians, Alilat by the Arabians, and Mitra by the Persians, and that she afflicted the Scythians who plundered her temple in Ascalon and all their descendants. Her attribute of the dolphin reflects her role as a patron of seafarers, and her title of Pandemos in Athens is suitable for a deity of concord and civic harmony. FTP, name this goddess who, according to Hesiod, was born when Uranus's severed genitals caused the ocean to foam.

ANSWER: Aphrodite

15. This country's exiled king, Simeon II, has announced that he will run for political office in elections to be held in June 2001. He has attracted interest from a public dissatisfied with the scandal-plagued, ruling coalition, the Union of Democratic Forces. The current Prime Minister, Ivan Kostov, has been the first to serve a four-year term since the 1989 end of single-party rule in, FTP, what country bordering the Black Sea?

ANSWER: Bulgaria

16. He is depicted in Heinrich Berte's operetta *The House of Three Girls*, Rudolf Bartsch's novel *Schwammerl*, and portraits painted by his friends Leopold Kupelwieser and Moritz von Schwind. His first theatrical successes came in the summer of

1820 with two musical plays, *The Twin Brothers* and *The Magic Harp*, and he would go on to write two operas, *Fierabras* and *Alfonso und Estrella*. FTP, name this Viennese composer who elevated the lied to a new stature in his songs "Gretchen at the Spinning Wheel," "Erlkoenig," and "The Trout."

ANSWER: Franz **Schubert**

17. German scientists have recently shown that by using a compound of barium, ruthenium, and magnesium oxide as a catalyst, the pressure required to do this can be cut in half. That's convenient because iron catalysts need almost 500 atmospheres of pressure at temperatures of 500 degrees celsius for this chemical reaction to work. FTP, name this industrial process that combines nitrogen and hydrogen to make ammonia.

ANSWER: **Haber**-Bosch process

18. He was crucified by order of the Roman governor Aegeas in Patrae on November 30, 70 C.E., and was not nailed but bound to the cross in order to prolong his sufferings. One of the twelve disciples of Jesus, he is depicted in Christian art as an old man with long white hair and beard, holding the Gospel in his right hand and leaning on his eponymous decussate cross. FTP, name this holy fisherman, a brother of Saint Peter and the patron saint of Russia and Scotland.

ANSWER: Saint **Andrew**

19. A journalist wants to leave his job with the tabloids and write something serious, but instead gets distracted by children who have seen the Virgin Mary, a visit from his father Ninchi, and the visit of an American starlet named Sylvia, so he eventually decides on a life of hedonism among Rome's upper classes. FTP, name this 1960 film starring Marcelo Mastroianni, which director Federico Fellini named for the sweet life.

ANSWER: La **Dolce Vita**

20. Mr. Barbour is a physicist who uses Zeno's paradox to refute the existence of time in his book *The End of Time*. Mr. Barnes is the author of such novels as *Metroland*, *Flaubert's Parrot*, and *Love, etc.* The one from Norwich was an anchoress who based her *Sixteen Revelations of Divine Love* on a series of visions she received in 1373. FTP, what name is shared by the title character of a Gore Vidal novel who banned Christian professors from teaching classical literature and is thus known to posterity as "the Apostate"?

ANSWER: **Julian**

OT 1. Europe currently has two of these. The one in France is a Breton city of 150,000 on the Penfeld River, home of the French Naval Academy and the debarkation point for American troops in World War I. The other is about 1500 miles to the east, in Belarus, between Minsk and Warsaw at the confluence of the Western Bug and Mukhavets rivers. FTP, give the shared name of these cities, the eastern of which saw the signing of a 1918 peace treaty.

ANSWER: **Brest** (Do not accept "Brest-Litovsk.")

OT 2. The title heroine of a Mikhail Bulgakov novel is her great-great-great-great granddaughter, but she more famously appears as a character in Giacomo Meyerbeer's opera *Les Huguenots*. Born in 1553 to Henry II of France and Catherine de Medici, she was the sister of Francis II, Charles IX, and Henry III, but is better known as wife of another monarch. FTP, name this sixteenth century French queen whose Catholicism and marriage to Henry IV led to the St. Bartholomew's Day Massacre.

ANSWER: **Margaret** of **Valois** (Also accept: **Marguerite** de **Valois**)

OT 3. Part four includes the essays "The Politics of Meaning," "After the Revolution: The Fate of Nationalism in the New States," and "Ideology as a Cultural System." Other essays included in this volume are "Religion as a Cultural System," "Ritual and Change: A Javanese Example," and "Deep Play: Notes on a Balinese Cockfight." These articles were written to be published in journals, but were collected for this 1973 book, which begins with an essay on Thick Description. FTP, name this work by Clifford Geertz.

ANSWER: The **Interpretation of Cultures**

Bonuses

1. Identify these organic molecules important in glycolysis, for the stated number of points.

1. This enzyme that catalyzes step three of glycolysis serves as an important regulator of cellular respiration.

ANSWER: **phosphofructokinase**

Glycolysis ends with the creation of this molecule, C3-H3-O3.

ANSWER: **pyruvate** (also accept: **pyruvic acid**)

3. Under aerobic conditions pyruvate enters the Krebs cycle, while in anaerobic conditions pyruvate becomes this compound, CH3-CHOHCOOH.

ANSWER: **lactic acid**

2. Name these philosophers from quotes, for 15 points each; or 5 points, if you need the title of a work.

1. (15 points) In his autobiography, *Unended Quest*, he recounts that Ludwig Wittgenstein, while brandishing a red-hot poker, challenged him to give an example of a moral rule. He replied, "Not to threaten visiting lecturers with pokers."

(5 points) *The Logic of Scientific Discovery*.

ANSWER: Karl **Popper**

2. (15 points) A biography by Ben Rogers recounts how at a party in London he found Mike Tyson assaulting a young model named Naomi Campbell. He warned Tyson to desist, and Tyson threatened, "Do you know who the fuck I am? I'm the heavyweight champion of the world," to which he replied, "And I am the former Wykeham Professor of Logic. We are both pre-eminent in our field; I suggest that we talk about this like rational men."

(5 points) *Language, Truth, and Logic*.

ANSWER: Alfred Jules **Ayer**

3. Identify these literary works featuring characters named Emily, for 10 points each.

In Act II of this play, Emily Webb and George Gibbs fall in love and marry.

ANSWER: *Our Town*

2. In this novel, Emily de St. Aubert accompanies her aunt, Madame Cheron, to Signor Montoni's melancholy Gothic castle in the Appenines.

ANSWER: *The Mysteries of Udolpho*

3. In this Canterbury Tale, Palamon and Arcite hold a jousting competition to decide who should have the right to love Emily.

ANSWER: *The Knight's Tale*

4. Identify the following about a recent European news event, for 10 points each.

1. A Socialist candidate has been elected mayor of this capital city after 24 years in which the office was held by the conservative Rally for the Republic Party.

ANSWER: **Paris**

2. This man, one of few openly gay politicians in France, was the successful Socialist candidate.

ANSWER: Bertrand **Delanoe**

3. If Delanoe aspires to become prime minister while RPR Party member Jacques Chirac retains the presidency, what divided governmental arrangement will Delanoe perpetuate?

ANSWER: **cohabitation**

5. Identify these literary works featuring teachers of classical languages, for 10 points each.

1. The title character of this novel is a retired schoolmaster who prefers detective novels to Greek and Latin works and dies dreaming of the thousands of boys he had taught at Brookfield.

ANSWER: *Goodbye, Mr. Chips*

2. Memories of the immigrant Shimerda family structure this novel in which the narrator, Jim Burden, attends the University of Nebraska and meets Gaston Cleric, a Latin teacher who introduces Jim to the world of ideas.

ANSWER: *My Antonia*

3. In this play, Henry Leeds, a professor of classics, postpones the marriage of his daughter, Nina, by persuading her fiance, Gordon Shaw, not to marry her until after the war, during the course of which Gordon is killed.

ANSWER: *Strange Interlude*

6. Name these terms from linguistics, for 10 points each.

1. A morpheme is said to be free when it is capable of occurring on its own as a word, but how would you describe a morpheme that is always appended to another item because it is incapable of being used on its own?

ANSWER: **bound**

2. A language is called this when its words are typically formed by stringing together several morphemes one after the other.

ANSWER: **agglutinating** or **agglutinative**

3. This is the capacity of language users to produce and understand a limitless number of words and sentences, many of them novel, in their language.

ANSWER: **productivity**

7. Answer the following about the life of an American author and his contemporaries, for 10 points each.

1. This novelist died in 1902 before completing *The Wolf*, the last book in his trilogy about the growth, sale, and consumption of wheat.

ANSWER: Frank **Norris**

2. Norris had worked as a reporter for *McClure's Magazine*, which sent him to Cuba during the Spanish-American War. There he met this fellow reporter and author, whose experience in a rescue boat after a shipwreck inspired an after-the-fact short story.

ANSWER: Stephen **Crane**

3. Later, Norris worked as a reader for the publisher Doubleday, Page, and Company, and convinced them to publish this Theodore Dreiser novel about the mistress of George Hurstwood.

ANSWER: *Sister Carrie*

8. Answer the following about the first use of one-point linear perspective in art, for 10 points each.

1. This sculptor of Zuccone and Gattamelata used linear perspective in a relief sculpture a few years before it appeared in the paintings of Masaccio, the drawings of Brunelleschi, and the writings of Alberti.

ANSWER: **Donatello**

2. Donatello's use of perspective is almost unnoticeable, appearing in a small relief at the base of a larger statue of this spear-wielding saint, who was also painted by Raphael.

ANSWER: Saint **George**

3. Donatello's St. George sculpture now sits in the Bargello in Florence and has been replaced by a copy in its original site, a niche in this Florentine grain exchange and pilgrimage center.

ANSWER: **Orsan Michele**

9. Answer the following about current events in higher education, for 10 points each.

1. In March 2001, this successor to Robert Rubin as U.S. Secretary of Treasury was named president of Harvard University.

ANSWER: Lawrence H. **Summers**

2. Inspired by the successful unionization of New York University's graduate students, graduate students at Columbia University in March 2001 petitioned this independent federal agency for permission to form their own union.

ANSWER: **N**ational **L**abor **R**elations **B**oard

3. In April 2001, Cornell University announced that it will create the Weill Medical College in this Middle-Eastern country, which has agreed to spend $750 million on the school over 11 years.

ANSWER: **Qatar**

10. Identify the region, 30-20-10.

(30) It was originally known as Sapta-Sindhu, meaning "seven seas."

(20) Since its founding, two of its namesakes have dried up, leading to its current name, which is derived from the Persian for five and water.

(10) In a 1947 partition, this region was split between India and Pakistan, with the capital of Lahore going to Pakistan.

ANSWER: **Punjab**

11. Name these NBA players, for 10 points each.

1. This Detroit Piston has this season's high for points scored in a game, with 57 against the Chicago Bulls.

ANSWER: Jerr**y Stackhouse**

2. Stackhouse arrived in Detroit as part of the trade that sent this shot-blocker to Philadelphia, and he has been traded once more since then.

ANSWER: Theo **Ratliff**

3. With 28 points and his first career triple double on April 9, 2001, Stackhouse set the Piston's record for points in a season, surpassing the 2213 that this man scored in the 1970-71 season.

ANSWER: Dave **Bing**

12. Given a state, name the only National Park in it, for 10 points each.

1. Michigan.

ANSWER: **Isle Royale**

   Oregon.

ANSWER: **Crater Lake**

   Kentucky.

ANSWER: **Mammoth Cave**

13. Identify these U.S. Supreme Court members, for the stated number of points.

1. (5 points) This first Jewish member of the Supreme Court enrolled at Harvard Law School in 1875 at age 18 without a college diploma, but still earned the highest grades in the school's history.

ANSWER: Louis **Brandeis**

2. (10 points) When Brandeis, who had been this man's hero and greatest influence, stepped down in 1939, this Minnesota native took his seat and held it for 36 years, the longest tenure of any Supreme Court Justice.

ANSWER: William O. **Douglas**

3. (15 points) This Justice studied under Douglas at Yale Law School, and advised Lyndon Johnson for twenty years. Johnson so wanted his trusted advisor on the court in 1965 that he nominated this man despite his preference to remain in private practice.

ANSWER: Abe **Fortas**

14. Given an event from the Sydney 2000 Olympics, the winner, and his winning time or distance, name the race, for the stated number of points. For example, if I said "Men's Track and Field; Maurice Greene; 9.87 seconds," you would say "100 meter run."

1. (5 points) Men's swimming and diving; Gary Hall Jr.; 21.98 seconds.

ANSWER: **50 meter free**style

(10 points) Men's track and field; Nils Schumann; 1 minute, 45.08 seconds.

ANSWER: **800 meter run**

3. (15 points) Men's track and field; Robert Korzeniowski; 1 hour, 18 minutes, 59 seconds.

ANSWER: **20 kilometer walk**

15. Identify these components of the earth's mantle, for 10 points each.

This ductile region of the mantle lies beneath the lithosphere.

ANSWER: **asthenosphere**

This silicate mineral is the chief component of the upper mantle.

ANSWER: **olivine**

3. These local regions of warmer material cause hot spots on the earth's surface, such as Hawaii or Yellowstone.

ANSWER: thermal or convection **plumes**

16. Answer the following about excommunication, for 10 points each.

1. Excommunication as performed by the medieval church was symbolized by these three objects associated with the tolling for the dead, church ritual, and the extinction of the accused soul's grace and joy.

ANSWER: **bell**, **book**, and **candle**

2. This sixteenth-century Italian philosopher was excommunicated from the Calvinist, Lutheran, and Catholic Churches, although it was the latter who burned him at the stake in 1600.

ANSWER: Giordano **Bruno**

3. In the eighth century, Pope Zacharias drew a distinction between minor excommunication, major excommunication, and this severest form of excommunication, incurred by crimes of the gravest order and solemnly promulgated by the Pope.

ANSWER: **anathema**

17. Identify the writers of these 16th century descriptions of the New World, for 15 points each; or for 5, if you need more

information about them.

1. (15 points) "The local peoples never gave the Spanish any cause whatever for the injury and injustice that was done to them in these campaigns. On the contrary, they behaved as honorably as might the inmates of a well-run monastery, and for this they were robbed and massacred."

(5 points) This Spanish clergyman denounced the cruelty of the Spanish in "A Short Account of the Destruction of the Indies."

ANSWER: Bartolome de **las Casas**

2. (15 points) "It appears to me, then, most Magnificent Lorenzo, that by this voyage of mine most philosophers who maintain that one cannot live within in the Torrid Zone are confuted; indeed, on my voyage I have found the contrary to be true."

(5 points) This Florentine was the author of letters to the Medici family, as well as the pamphlet "Mundus Novus."

ANSWER: Amerigo **Vespucci**

18. Name these colonizers of North America, for 10 points each.

1. This governor of Virginia arrived at Jamestown with three ships, 150 settlers, and supplies on June 10, 1610, just in time to intercept the colonists who had embarked for England and were abandoning the enterprise.

ANSWER: Thomas West, 12th Baron **De La Warr**

2. This governor of New Amsterdam commanded two vessels of colonists who established New Sweden in 1638, but is better known as the shrewd businessman who persuaded Indians to sell Manhattan for a handful of trinkets.

ANSWER: Peter **Minuit**

3. In 1682, this proprietor of West New Jersey purchased from the Duke of York the so-called Three Lower Counties that eventually became Delaware.

ANSWER: William **Penn**

19. Answer the following about Finno-Ugric myth and magic, for 10 points each.

1. In the sixteenth and seventeenth centuries, Swedish authorities confiscated these items, to the sound of which Lappish sorcerers chanted their sacred exorcisms.

ANSWER: **quodbas** or "magic **drums**"

2. According to Finnish myth, this mysterious talisman which brings prosperity to the land of Pohja breaks in the course of a tempest, though its fragments are enough to assure the prosperity of the land of Kalevala.

ANSWER: **sampo**

3. The mythical hero Lemminkainen is killed while attempting to shoot with his arrow this animal in the Finnish underworld of Tuonela, but is brought back to life by the magic powers of his mother.

ANSWER: **swan**

20. Answer the following about the man whom Indians call the "Mother Teresa of economics," for 10 points each.

1. Name this 1998 economics Nobel prize winner who, as Master of Trinity College, Cambridge since January 1998, is the first Asian to head an Oxbridge college.

ANSWER: Amartya **Sen**

2. Sen helped to create this United Nations index, which has become the most authoritative international source of welfare comparisons between countries.

ANSWER: **Human Development** Index

3. Sen was not awarded the Nobel prize for his more accessible work in development economics, but for this theoretical branch of economics, the philosophical foundation backed by mathematics which supports all his writings.

ANSWER: **social choice** theory

OT 1. Given an opera by Giuseppe Verdi, name the country in which the composer set it, for 10 points each.

La Traviata.

ANSWER: **France**

A Masked Ball.

ANSWER: **U**nited **S**tates (Do not accept either Italy or Sweden, for these settings are the inventions of later productions.)

Nabucco.

ANSWER: **Israel** or **Babylon** (accept either)