## Michigan MLK Tournament 2004

## Round by <br> Illinois and <br> Northwestern B

Michigan MLK Tournament 2004
Packet by
Illinois
(Sudheer Potru, Mike Sorice, and Andrew Ullsperger)
and
Northwestern B
(Kate Rigot, Anthony Walters, Mike Bisberg, Neil Biswas, Pete Newstrom)
Tossups

1. Goethe's estimation of this younger contemporary was that if Goethe was Saul, this composer of The First Walpurgisnacht was David. A female chorus gets to sing the lines of Jesus in his oratorio Paul. He died in 1847 shortly after returning from a trip to England where he was Queen Victoria's favorite composer and premiered his Elijah. For 10 points, name this composer of a series of Songs Without Words as well as the "Scottish" and "Italian" Symphonies.

Answer: $\quad$ Felix Mendelssohn - Bartholdy
2. In this play, an invitation to a sermon on the beheading of John the Baptist precedes the beheading of the canary Serena, whose injury symbolizes that of the title character's. The dog Diana has sex with a mongrel, breaking the class barrier that Christine, the cook, believes in wholeheartedly. The title character herself has sex with the valet Jean, who eventually hypnotizes her and tells her to kill herself. FTP, name this Strindberg masterpiece.

Answer: Miss Julie
3. The largest island in it, Valaam, is the site of a monastery dating back to the tenth century. It is fed principally by the Vuoska, the Volkhov, and the Svir, which descends from Lake Onega it is drained by the Neva, which eventually empties into the Gulf of Finland. While on the border between Russia and Finland, it has been entirely within Russian borders since World War Two. FTP, this is what $7,000 \mathrm{sq}-\mathrm{mi}$ lake north of St. Petersburg that is the largest in Europe?

## Answer: Lake Ladoga

4. While he wandered around from feudal court to another trying to find a ruler to follow his teachings, he also defended those teachings against Mohism and the egoism of Yang Zhu. He also introced the concept of righteousness, or $i$ to Confucianism as well as the right of the people to revolt if a ruler loses the Mandate of Heaven. His interpretation of Confucianism was long regarded as orthodox. For 10 points, name this Chinese philosopher and namesake of one of the Four Books of Confucian thought.

Answer: Mencius
5. The Grand Theft Auto III mission "Blow Fish" requires one to drive a truck of this type, while this type of island names both an independent comic by Mel Horan and the destination of a barge landed upon by Homer Simpson's car. The band of this name failed to issue its 2001 Mushroom release in the United States. FTP, give the common name of all these things, a synonym for the kind of questions we'll be hearing tomorrow at the Ann B. Davis.

Answer: garbage
(grudgingly accept dust or any synonym of garbage before "Mel Horan")
(ed's note: Shameless promotion of our own event inserted by editors)
> 6. His autobiography Dichtung und Wahrheit, describes his early exploits as a researcher in biological morphology. A trip he took between 1786 and 1788 resulted in his Iphigenia at Aulis, Torquato Tasso and Roman Elegies. Later, his drama Gotz von Berlichingen gained him immense popularity, resulting in his appointment as the chief minister of Weimar for a decade. For 10 points, name this leader of the Sturm und Drang movement and author of Faust.

Answer: Johann Wolfgang von Goethe (GUUHH-tuh)
7. These structures often contain rich diamond pipes, usually the results of volcanic activity dating back over 100 million years. Defined as a stable area of continental crust that has not undergone major plate tectonic or orogenic activity for a long period, many contain rocks dating to the Precambrian. FTP, name these ancient geologic structures, examples of which include the Kaapvaal, the Canadian Shield, and the Ozarks.

Answer: cratons (accept shields before mentioned)
8. Every year during the sixth prytany [PRIT-uh-nee] it was decided whether one of these would occur. In the fourth century it was largely replaced by the graphe paranomon [GRAH-fay pa-ruh-NOH-mahn]. The first use was twenty years after the practice was supposedly instituted by Cleisthenes. About ten thousand pieces of pottery from the Athenian Agora, some of them with names on them like Xanthippus, Aristides and Themistocles are evidence for, for 10 points, what Athenian system of temporary exile of one citizen by popular vote?

## Answer: ostracism

9. It was stated originally by Johann von Herder and Wilhelm von Humboldt and was developed at Yale University and arose mainly from the study of the Hopi. Evidence of it includes the fact that Eskimos have separate words for snow and ice, while Aztecs use only one term for both, leading to the idea that a language's structure conditions the way a user thinks. FTP, identify this linguistic theory named for the two men that formulated it.

Answer: $\quad$ Sapir-Whorf hypothesis
10. Two disjoint trees may be concatenated in two steps using this procedure, assuming knowledge of an extreme key value. This important operation on binary trees may be implemented most simply as an ordinary search followed by a recursive series of AVL rotations and, consequently, most basic operations on AVL-type trees may be implemented via this instruction in ["big oh of log enn"] time in an amortized average. FTP, name the operation that moves the node returned by a search for a given key to the root of a binary tree.

## Answer: Splay

11. A pair of barely visible legs and a faded woman's head suggest that the canvas was most likely used to begin another portrait before the artist decided on this subject, a theory which also accounts in part for the subject's unusual posture. His shirt is torn at the left shoulder, and his eyes are closed as his head hangs down to his right, the spindly fingers of his left hand on the frets. For 10 points, name this title character of a Pablo Picasso painting, an elderly musician leaning against a wall.

Answer: The Old Guitar Player
12. He was the first executive director of the A. Philip Randolph Institute, and his article "Twenty-Two Days on a Chain Gang" was published in the New York Post after he served a 30-
day sentence for violating segregation laws during the 1947 Freedom Rides. With Ella Baker and Stanley Levinson, he founded the Southern Christian Leadership Conference, and was involved in the creation of the Congress of Racial Equality. This is, for 10 points, what advisor to Martin Luther King, Jr., who organized the 1963 March on Washington.

Answer: Bayard Rustin
13. More than three decades of ethnic harmony and prosperity where shattered here in 1999 when a military coup toppled the government of president Henri Bedie. Antipathy toward Muslim immigrants and Liberian refugees led to rebel movements forming in the nation's east and north in 2002, with French mediation efforts being only partly successful. FTP name this country, tentatively governed by Laurent Gbagbo, with capital at Yamoussoukro.

Answer: Ivory Coast or Côte d'Ivoire
14. It takes its name from wool garments worn by 8th century ascetics, but practitioners use the letters composing the word to express hidden meanings, and so the word could also be understood as "enlightenment." Central to this sect are the concepts of tawakkul (tah-VAH-kuhl), total reliance on God, dhikr, the perpetual remembrance of God, and qawwali (kah-VAH-lee), achievement of religious ecstasy through music. For 10 points, name this Islamic movement that has roots in Christian monasticism and Indian mysticism.

## Answer: Sufism

15. According to the liner notes for this album, several million people confused the collaborator on its fourth track with a certain "St. Lunatic." That track, "Sacrifice," is labeled ninety per the practice of the issuing band of labeling each officially released track in a single series. Other collaborations on this 2004 Grammy nominee include "Something in the Way of Things (in Town)" with Amiri Baraka and "The Seed (2.0)" with Cody ChesnuTT, though this album's centerpiece is the sound collage "Water." FTP, name this long-awaited new release from The Roots.

## Answer: Phrenology

16. He died tragically when he accidentally set his suitcase down in such a way that it made his gun go off, but not before he had made two field research trips to Yugoslavia between 1933 and 1935, amassing a large quantity of field recordings of the epic poetry of local rhapsodes. This led to his answer to "The Homeric Question," namely his Theory of Oral Composition For 10 points, identify this classical scholar whose assistant, Albert Lord, continued his work after his death, ultimately publishing The Singer of Tales.

## Answer: Milman Parry

17. The theoretical distribution of this statistic, given a normal population, is a special case of the gamma distribution with alpha and beta respectively equal to half the number of degrees of freedom and two. It may be difficult to perform a two-sided significance test via this statistic, as its distribution is asymmetric due to the inherent non-negativity of the variance. FTP, name the statistic that may be defined symbolically as ["quantity enn minus one, close quantity, times little ess squared divided by quantity little sigma squared, close quantity"] and provides the experimental sampling distribution of the variance.

Answer: Chi-Squared
18. This granddaughter of economist Henry George attended UCLA before landing the job in New York that led to her success with the famous Fall River Legend, one of two pieces based on the life of Lizzie Borden. Her work with musicals includes Paint Your Wagon and Gentlemen Prefer Blondes, but she may be best known for a ballet based on a Copland work, which was the first to include tap-dancing. FTP, name this dance choreographer of Rodeo.

Answer: $\quad$ Agnes George de Mille
19. Mommy is a sadistic disciplinarian, emasculating Daddy, and mutilating their "bumble" of joy. Grandma is dismissed by Mommy and Daddy, and describes The Young Man as "almost insultingly good-looking in a typically American way." The conclusion results in Mommy and Daddy's final satisfaction, and Grandma being taken away by the Van People. For ten points name this work of American absurdism, written by Edward Albee.
Answer: The American Dream
20. Named for the daughter-in-law of the namesake of the state in which it is located, it contains the second-widest street in the U.S. and was the National Training Center for sculling from 1995 to 2000. Home to the National Science Center and the Medical College of Georgia, Jessye Norman, Ty Cobb, Hulk Hogan, and James Brown have all called it home. For 10 points, identify this second largest city in Georgia.

Answer: Augusta
21. The cause of sex expression in dioecious flowers, there have been 126 of them isolated to date. Found in angiosperms, gymnosperms, ferns, mosses, algae and even some fungal and bacterial species, these diterpenes synthesized from acetyl CoA are thought to be produced in shoots and developing seeds, though their effects are most obviously seen in stems. This is, for ten points, what class of plant hormones, which stimulate the cell division and elongation that results in stem elongation.

Answer: Gibberellins
22. He opened a jazz coffee shop in 1974, but closed it to devote his time to writing. His first novel Hear the Wind met with little critical acclaim, but later works like Dance, Dance, Dance and The Sputnik Sweetheart had high-volume sales. His only collection of short stories in English is The Elephant Vanishes, and he won the Tanizaki Prize for The Hard-Boiled Wonderland and the End of the World. FTP, name this Japanese author of The Wind-Up Bird Chronicle.

Answer: Murakami Haruki
23. He died of a heart attack at Eshowe, and his grave at Nkandla is still guarded constantly. He had to kill eight of his half-brothers by various of his father Mpande's wives to get to the throne. Theophilus Shepstone crowned him in 1872, and he subsequently led his people to victory at Isandhlwana and defeat at Ulundi. For 10 points, name this king who gave the British a run for their money during the Zulu War.

Answer: Cetshwayo (accept Cetewayo)
24. Two answers required. Played by Matt Crocco and Liam Lynch, they were once nearly given the key to the city of Transylvania, and had the privilege of interviewing hip-hop superstars Orgasm \& G-Spot. Regularly lending their names to endorsements for products sold to infomercial host Precious Roy, and introduced at the beginning of every half hour by their sidekick Chester, these are, for 10 points, which two oft-singing sock-puppets who somehow got their own show on MTV.
Answer: Sifl \& Olly
25. This supporter of Alfred Dreyfus founded the socialist daily paper $L^{\prime} H u m a n i t e ́ ~ p r i o r ~ t o ~ h i s ~$ founding the Ethnology Institute at the University of Paris. He became editor of The Sociological Year after the appearance of his first major work, Sacrifice, its Nature and Function. In that position he succeeded his uncle, Émile Durkheim. Exchange relationships in Melanesia were the most famous thing studied by, for 10 points, what French sociologist and author of The Gift?

Answer: $\quad$ Marcel Mauss
26. This man's father is sometimes given as Poseidon, but is more conventionally Cycleus; his place of birth also varies by myth between Corinth and Methymna. After receiving a golden lyre for his twentieth birthday, this musician decides to ignore a prophecy of doom, which he unwittingly circumvents with the aid of his friend Periander. For ten points name the mythical musician of Greek legend and supposed inventor of the dithyramb, whose music is so heavenly that it charms some dolphins who save him from drowning.

## Answer: Arion

27. It employs the catalyst of one of its namesakes, a mixture of titanium tetrachloride and an alkylaluminum compound. The transition state of this reaction is believed to involve formation of a complex formed when empty orbitals of titanium are filled by pi-electrons from a carboncarbon double bond. Unlike free-radical reactions, it can produce linear unbranched polyethylene and isotactic polypropylene. FTP, name this polymerization reaction which earned its two namesakes the 1963 Nobel Prize in Chemistry.

Answer: Ziegler-Natta polymerization
28. After a brief trial, one of its leaders was released, while the other served just eight months of a five-year imprisonment sentence. Nineteen people, including three policemen were killed in gunfire after the insurgents had forced the leaders of a right-wing political meeting at the title location to join what was supposed to be a March on Berlin, backed by war hero Erich Ludendorff. We could have saved a lot of trouble if the Germans had just shot Hitler after, for 10 points, what abortive 1923 uprising in Munich?

Answer: Beer Hall Putsch or Munich Putsch or Bierkeller Putsch or Münchener Putsch (do not accept answers containing only "Munich" after the word "Munich" is mentioned.

## Bonuses

1. Answer the following questions about a battle, FTPE.
2. This battle of 15 October 1806 ended with Napoleon completely creaming the Prussians under Frederick William III. It is often combined with the Battle of Auerstadt.

Answer: Battle of Iena-Auerstadt
2. Napoleon's overwhelming victory at Jena resulted in the reduction of Prussia to just over half of its former size as a part of this 1807 treaty.

Answer: $\quad$ Treaty of Tilsit
3. Despite a vastly superior force near Auerstadt, Charles William Ferdinand failed to defeat the forces of this general, commander of the elite Third Corps of the French army.

Answer: Louis-Nicolas Davout, Prince d'Eckmuhl
2. Answer the following about a tiff brewing between the Bush administration and a former member of the Cabinet, FTPE.

1. This former Treasury Secretary for President George W. Bush has recently made allegations about the administration's plans to attack Iraq, the lack of WMD evidence, and also on the administration position concerning the budget.

Answer: Paul $\mathrm{O}^{\prime}$ Neill
2. After being fired from his post in 2002, $\mathrm{O}^{\prime}$ Neill also provided thousands of documents to journalist Ron Suskind for research for this book.

Answer: The Price of Loyalty
3. Before becoming Treasury Secretary, O'Neill was CEO of this giant aluminum producer headquartered in Pittsburgh.

Answer: Alcoa
3. Answer the following questions about Aztec gods for the stated number of points.
A. (5) In the Legend of the Suns, this trickster god and culture hero is responsible for bringing the humans' bones out of the underworld and restoring life to them.

Answer: Quetzalcoatl (kay-tzal-KOH-atl)
B. (10) The name of this brother of Quetzalcoatl means "smoking mirror," and in the Legend of the Suns, he helps two humans escape the great flood.

Answer: Tezcatlipoca (tez-kat-lee-POH-ka)
C. (15) With a name meaning "Hummingbird on the Left," this cult god of the Aztecs is believed to symbolize the Aztec ascendance over competing peoples of central Mexico.

Answer: Huitzilopochtli (wee-tzee-loh-POCH-tli, gutteral "ch")
4. This daughter of Visvamitra and Menaka loses a ring given to her by King Dushyanta, although her son Bharata becomes the progenitor of the Indian race. FTPE:

1. Name this title character.

Answer: Shakuntala
[full title is The Recognition of Shakuntala or Shakuntala and the Ring of Recollection]
2. Now, identify the author of the Sanskrit drama Shakuntala and the Ring of Recollection.

Answer: Kalidasa
3. This long Kalidasa poem takes the form of the letter from a lover to his beloved, and describes the mountains, rivers, and trees of northern India.

Answer: "The Cloud Messenger" or "Meghaduta"
5. Name these features of the British Isles, FTPE.

1. This chain of mountains and hills is the "backbone of England" and runs roughly from Carlisle in the north to Birmingham in the south.

Answer: the Pennines
2. This river is the longest in Britain, has its source in Wales and after a circuitous course empties into the Bristol Channel.

Answer: the Severn River
3. This 147 square-mile island between the Solent and the English Channel is located just south of Southampton. Towns include Newport and Ventnor.

Answer: Isle of Wight
6. Name the impressionist painter from works, for 10 points each.
A. (10) Jugglers at the Cirque Fernando, Girls At the Piano, On the Terrace

Answer: Pierre Renoir
B. (10) The Chestnut Trees At Osny, The Stage Coach at Louveciennes, The Red Roofs

Answer: Camille Pissarro
C. (10) The Cotton Exchange at New Orleans, Racehoreses in Front of the Grandstand, The Orchestra of the Opéra
Answer: Edgar Degas
7. Answer these questions about humanistic or client-centered psychotherapy, FTPE.

1. The basis for client-centered therapy is this concept, which indicates total and complete willingness and acceptance for a patient in hopes of their complete honesty.

Answer: unconditional positive regard
2. Client-centered therapy was developed by this man, a close associate of Abraham Maslow.

## Answer: Carl Rogers

3. Another key part of client-centered therapy is this process by which the therapist repeats the words of the patient, providing him/her a new way to consider the idea.

Answer: reflection or mirroring
8. Answer the following about sugars, FTPE:

1. This projection that shows a sugar molecule in a chain where H and OH groups branch off of a chain of stereocenter carbons represented by perpendicular lines is often used to differentiate $L$ and D sugars.

Answer: Fischer projection
2. This is the general name given to sugars composed of more than 2 but generally fewer than 100 monosaccharides

Answer: oligosaccharide
3. This is the type of bond that often connects monosaccharides together. An example is the 1,4variety found between glucose subunits in cellulose and starch.

Answer: glycosidic linkage
9. Name the works which provided the inspiration for these titles in American literature, FFPE with a five-point bonus for all correct.

1. (5) The Sun Also Rises

Answer: Book of Ecclesiastes (prompt on "The Bible" or equivalents)
2. (5) Slouching Toward Bethlehem

Answer: "The Second Coming" [Yeats]
3. (5) From Here to Eternity

Answer: "Gentleman-Rankers" [Kipling]
4. (5) Arms and the Man

Answer: $\quad$ The Aeneid [Vergil]
5. (5) Tender is the Night

Answer: "Ode to a Nightingale" [Keats]
10. Name the South American rivers from clues, FTPE.

1. This major river of Colombia rises in the Cordillera Central of the Andes and flows generally northward until emptying into the Caribbean at Barranquilla (pron. Barr-ahn-KEY-ya).

## Answer: Magdalena

2. This 1,590 mile-long river rises in the Guiana highlands near the Brazil-Venezuela border and cuts through Venezuela on its way to the Atlantic.

## Answer: Orinoco

3. This river starts at the southern tip of Brazil and forms the entire border between Argentina and its namesake country before it empties into the Rio de la Plata near Buenos Aires.

## Answer: Uruguay

11. Questions about prions, for the stated number of points:
12. (10) This Cal-Berkeley scientist won the 1997 Nobel in Medicine or Physiology for his work showing a connection between prions and diseases.

Answer: Stanley Prusiner
2. $(5,5)$ The prion protein $\operatorname{PrP}$ is believed to switch from its benign to its disease causing form when a section converts between these two major types of protein secondary structure. Name both, 5 each.

Answer: alpha-helix and beta- (structure, strand, or pleated sheet)
3. (10) PrP is connected to the surface of neurons by this structure commonly used to attach receptor proteins. It consists of a phosphoethanolamine and sugar bridge that links a protein to a common type of phospholipid in the cell membrane.

Answer: $\underline{G l y c o s y l}$ PhosphatidylInositol or PhosphatidylInositolGlycosyl anchor (GPI or PIG)
12. Given the names of some of its prototypical versions, name each band FTPE.

1. The Quarrymen

Answer: The Beatles
2. Earth

Answer: Black Sabbath
3. The Abdabs, Sigma Six

Answer: The Pink Floyd Sound
13. Name some characters from the Marriage of Figaro, for 10 points each:
(10) This is Figaro's employer, who was also his associate in The Barber of Seville, only now he is trying to seduce Figaro's fiancée.

Answer: Count Almaviva
(10) This over-amorous page boy's part is always played by a woman, as directed by Beaumarchais in the original play.

## Answer: Cherubino

(10) This offensive pedant starts off feuding with Figaro but subsequently finds out he's Figaro's father.

Answer: Bartolo
14. Name these laws with an irrelevant fact in common, for 10 points each:
(10) This bill to raise agricultural commodity prices by an "equalization fee" took four years to get through Congress before Coolidge vetoed it in 1928.

Answer: McNary-Haugen
(10) This 1922 tariff bill was designed to protect the industries that had grown up during the War and increased the president's ability to adjust rates.

Answer: $\quad$ Fordney-McCumber
(10) This 1952 immigration law passed over Truman's veto. It retained a preference for Northern Europeans and increased screening for subversive or undesirable aliens.

Answer: $\quad$ The McCarran Act
15. For ten points each, name these senators who will not be seeking reelection in 2004.
A. (10) A World War II veteran and former South Carolina governor, this Democrat has served as that state's senator since 1966, sponsoring the Online Personal Privacy Act in 2002.

Answer: Fritz Hollings
B. (10) When he was elected to the House in 1972, this Louisiana Democrat was the youngest member of congress.

Answer: John Breaux
C. (10) His successor as governor, Roy Barnes, appointed him to the Georgia senate seat following the death of the Republican senator Paul Coverdell in July 2000. He then won 58 percent of the vote in a special election for the same seat the following November.

Answer: Zell Miller
16. Name each group from Catholicism given some of its members for ten points.

1. Prudence, temperance, fortitude, and justice

Answer: cardinal virtues (accept natural virtues, prompt on "virtues")
2. Anointing of the sick, reconciliation, ordination

Answer: the Seven Sacraments
3. That at the prophesy of Simeon, that at the flight into Egypt, that at the burial of Christ.

Answer: Seven Sorrows of the Blessed Virgin Mary
17. Identify the following about the work of Le Corbusier, FTPE.

1. Beginning in 1951, the Indian government commissioned Le Corbusier to supervise the design of this city, the new capital of the Punjab.

Answer: Chandigarh
2. Le Corbusier is known for many of his dicta, including "a house is a machine for living in", which is found in this classic 1923 polemic work.

Answer: $\quad$ Towards a New Architecture (or Vers une architecture)
3. One such machine is this low-slung squarish house that he and Pierre Jeanneret built in Poissy [pwah-SEE], a suburb of Paris, in 1929-30.

Answer: The Villa Savoye
18. Answer the following about some fundamental things FTSNOP.

1. (10) "All of the additive terms in a relation properly describing a physical system must have the same dimensions" is a succinct statement of this vital scientific principle.

Answer: principle of dimensional homogeneity
2. (15) This theorem states that, given a physical system completely described by a set of dimensionally homogenous equations containing ["enn"] dimensional parameters in ["emm"] fundamental dimensions, one may completely describe the given system by at least ["enn minus emm"] dimensionless parameters.

Answer: Buckingham pi theorem
3. (5) Perhaps the best-known result of nondimensionalization via the pi theorem is this dimensionless parameter from fluid mechanics, vaguely defined as the ratio of "inertia to viscosity."

Answer: Reynolds number
19. Name these Canadian Prime Ministers, FTPE.

1. He held office from 1911 to 1920 and played a crucial role in changing Canada from a colony to a nation by insisting on a separate Canadian presence in the League of Nations.

Answer: $\quad$ Sir Robert Laird Borden
2. This first prime minister of Canada served twice and is responsible for Canada's adoption of the policy of centralization.

Answer: $\quad$ Sir John A. Macdonald
3. This leader of the Progressive Conservatives negotiated the Meech Lake Accord before his replacement by Kim Campbell in 1993.

## Answer: $\quad$ Brian Mulroney

20. Illinois neglected to write a sports question, even on their own school, so FTP each name these famous Fighting Illini athletes.
(10) A three-time All American at Illinois known as "The Galloping Ghost", this halfback stunned many by playing pro football with the Chicago Bears in the 1920's.

Answer: Harold "Red" Grange
(10) This Illini was signed in late 2003 by the Seattle Mariners after four years as the starting first baseman and sometimes third baseman for Anaheim.

Answer: Scott Spiezio
(10) This alliterative Illini golfer won the 2001 Accenture Match Play championship and was runner up at the 1998 PGA championship. His best finish in 2003 was tied for 18th at the Phoenix Open.

Answer: Steve Stricker

## 21. Name these Henry James works, FTPE.

1. This title character is courted by both Winterbourne and Giovanelli before she dies in the disease-ridden Colosseum in Rome.

Answer: Daisy Miller
2. In this novel, the wealthy businessman Christopher Newman falls in love with both Claire de Cintré and Noémie Nioche but winds up with neither at the end.

Answer: $\quad$ The American
3. May Bertram is living with her great-aunt in Weatherend when she meets and falls in love with John Marcher, the title character. Marcher realizes his love for her only after she dies.

Answer: $\quad$ The Beast in the Jungle
22. SARS is back in the news. Answer questions about its return, FTPE.

1. Once again, cases have been most concentrated in this southeastern Chinese province which borders Hong Kong.

Answer: Guandong
2. Last year, SARS was shown to be caused by this type of virus which gets its name from the array of glycoprotein spikes on its surface.

## Answer: coronavirus

3. Health authorities in China ordered the destruction of 10,000 of these animals implicated in the transmission of SARS to humans. They have traditionally been a delicacy in Guandong.

Answer: masked palm civet cats
23. Answer the following about particularly useful sorts of polynomials, FTPE.

1. This polynomial can be used to solve for the eigenvalues of a matrix, and has general form the determinant of the quantity A minus lambda I, where I is the identity matrix.

Answer: characteristic polynomial or equation
2. These orthogonal polynomials defined by $T n(\cos ($ theta $))=\cos (n$ (theta)) are used in a variety of approximation formulas

Answer: Chebyshev polynomials of the first kind
3. These orthogonal polynomials useful in quantum mechanics and combinatorics have weighting function ( $e$ to the minus $x$ squared). They are contained in the wavefunction for a quantum harmonic oscillator.

Answer: Hermite polynomials
24. Given an odd beast from mythology, name it for ten points.

1. This strong creature with the head of a snake, body of a leopard, back legs of a lion, and hooves of a deer is the object of a lifelong pursuit by Pellinore.

Answer: the Questing Beast
2. This Russian king of all animals causes of earthquakes from his impregnable mountain habitation.

Answer: Indrik the Beast
3. These Japanese spirits live in the water and come out to drown children. They have the face of an ape, the body of a turtle and the same name as a Greek letter.

Answer: Kappa
25. Name each of the following about a show from the television FTSNOP.

1. (5) According to its Schooly D-performed introduction, this show from the Cartoon Network's Adult Swim is "number one in the hood, G."

## Answer: "Aqua Teen Hunger Force"

2. (10 points, all or nothing) Name all three members of the Aqua Teen Hunger Force.
3. (15) These most hilarious villains possess a quad laser attack against which jumping is useless. At their home, on the moon, the weekend has advanced to encompass the entire week, so they use their checks from the government to buy the cheapest of all beers.

Answer: the Mooninites (accept Inignot and Err in either order)
26. Name each of the following uprisings from American history FTSNOP.

1. (5) This 1794 conflict resulted from an excise tax on the namesake liquor.

Answer: The Whiskey Rebellion
2. (10) James Madison helped put down this major slave revolt whose namesake leader planned to kill all white men in Richmond, Va., except Frenchmen, Methodists and Quakers.

Answer: Gabriel's Rebellion (accept Gabriel Prosser's Rebellion)
3. (15) This 1689 rebellion resulted in the namesake merchant being made governor of New York until 1691, when he was deposed and hanged for treason.

Answer: Leisler's Rebellion
27. Name these African authors from works, FTPE.

1. Petals of Blood; Weep Not, Child

Answer: Ngugi wa Thi'ongo
2. Heavensgate; Limits; Labyrinths, with Paths of Thunder

Answer: $\quad$ Christopher $\underline{\text { Okigbo }}$
3. My Life in the Bush of Ghosts; The Palm-Wine Drunkard

Answer: Amos Tutuola
28.
29.
30.

