# 1999 Mad City Masters Tournament 

## Filoviruses Tossups

(by R. Robert Hentzel and Chad Kubicek)

1. Among his crimes were the strangulation of young William, which was pinned on the innocent Justine; the killing of Elizabeth Lavenza on her wedding night; and the murder of Henry Clerval. These crimes were related in that William's brother, Elizabeth's husband, and Clerval's best friend were the same man, a doctor and chemist who happened to be the creator of their killer. For 10 points-name this literary creation of Mary Shelley.
answer: $\quad$ Frankenstein's monster (accept equivalents, but do not accept "Frankenstein")
2. Uncovered by Treasury Secretary Benjamin Bristow in 1875, it began in St. Louis, where General John McDonald, collector of internal revenue, began accepting bribes from distillers to excuse them from paying federal excise taxes. Orville Babcock, the President's secretary, was acquitted only after Grant went to great lengths to protect him. For 10 points-name this Grant Administration scandal.
answer: Whiskey Ring
3. It denotes a frequency ratio of $1: 1,2: 1,3: 2$, or $4: 3$, four values that are closed under inversion. They may be both augmented or diminished, unlike major and minor intervals. For 10 points-give this seven-letter music theoretic term for the unison, octave, fourth, and fifth intervals.
answer: perfect
4. Its name is derived from the French for "pretty red," and actually refers to an earlier all-red flag that indicated that no prisoners were to be taken. Today, with swords substituting for bones, it is the logo for two NFL teams, the Buccaneers and Raiders. For 10 points-identify this skull and crossbones flag forever associated with piracy.
answer: Jolly Roger
5. The Temple in The Temple of the Golden Pavilion. Silas Lapham's new house in The Rise of Silas Lapham. The orphanage in Ghosts. Manderley in Rebecca. The library in The Name of the Rose. For 10 points-what similar fate was shared by these literary buildings, as well as by Thornfield Hall in Jane Eyre?
answer: burned down (accept equivalents)
6. She has appeared in many TV movies including Seduced \& Betrayed and Blood On Her Hands. She first appeared on her show's 10th episode and has been featured as the Queen of Pine Valley, Erica Kane, ever since. For 10 points-name this actress who ceased to be a synonym for runner-up in 1999 when she won a Daytime Emmy for Outstanding Lead Actress on her 19th nomination.
answer: Susan Lucci
7. The brainchild of entrepreneurs Cyrus Avery of Oklahoma and John Woodruff of Missouri, it lent its name to a 1960 s television series starring Martin Milner and George

Maharis and a 1946 song written by Bobby Troup and performed by Nat King Cole. For 10 points-name this highway, dubbed the "Mother Road" by John Steinbeck in The Grapes of Wrath, which linked Chicago and Los Angeles.
answer: Route 66 (U.S. Highway 66)
8. The hyacinth girl, Mrs. Porter, Mrs. Equitone, Phlebas the sailor, Marie, Stetson, Saint Mary Woolnoth, Bill, Lou, May, and Madame Sosostris are all characters that appear in "The Burial of the Dead," "A Game of Chess," and "The Fire Sermon," the first three parts of a 1922 poem. For 10 points--name this work by T. S. Eliot that begins "April is the cruelest month."
answer: The Waste Land
9. That they are missing from viruses is those organisms' primary motivation for invading other cells. They are composed of four molecules of RNA and about 70 proteins and are always shaped as two unequally-sized subunits. They change messenger RNA into transfer RNA and thus translate the genetic code into protein molecules. For 10 points-name this organelle that lent its name to the third major type of RNA, rRNA.
answer: ribosomes
10. It was introduced by Buddhist missionaries from China in the 6th century BC who had ritualized the offering of certain gifts to Buddha. Individual styles include rikka, moribana, shoka, nageire which differ in the number of units, their height relative to the bowl, and the use of Western plants. For 10 points-name this traditional art of Japan.
answer: $\quad$ ikebana or flower arranging
11. In AC circuits they cause voltages to lag behind the driving current and have individual voltage drops proportional to the definite integral of the current. They are also characterized by having an energy density proportional to the square of the electric field in the dielectric between their plates. For 10 points-name these electrical components which put the " C " in "LRC" circuits.
answer: capacitors or condensors
12. The Thar on the India-Pakistan border. The Dasht-e Kauir in Iran. The Kara Kum in Turkmenistan. The Taklimakan in China. The Rub al-Khali in Saudi Arabia. The Nubian in Sudan. The Sonoran in Arizona, California, and Mexico. The Great Victoria and Great Sandy in Australia. For 10 points-these are all notable examples of what hot, dry biome?
answer: deserts
13. They became involved when, along with Orciani and Boda, they called at Johnson's garage in South Braintree for Boda's car. They had intended to use it to hide their propaganda, but the car had been linked to one found abandoned on April 17, 1920, two days after being used to rob the payroll of the Slater and Morrill shoe factory. For 10 points-name these two men who were executed for murder amid international controversy.
answer: $\quad$ Nicola Sacco and Bartolomeo Vanzetti
14. A California real estate dealer who once lost two million dollars in his spare time dies, but his will isn't discovered for three months, including the codicil, added a year ago, that
names an old lover as executrix. The novel opens with that woman, now married to Mucho Maas, receiving notification of her new responsibilities. For 10 points-name this 1966 novel by Thomas Pynchon revolving around the past relationship of Pierce Inverarity and Oedipa Maas.
answer: $\quad$ The Crying of Lot 49 (accept Pierce Inverarity (either) before "The novel")
15. It is the scarcest of the elements that are recycled in the biosphere and appears to be steadily accumulating in the ocean, though fish harvests and seabird guano bring some back to terrestrial organisms. It is released by the weathering of apatite and clay and is biologically critical for energy transfer and the creation of DNA. For 10 points-name this colorless, semitransparent, waxy element with atomic symbol $P$.
answer: phosphorus
16. Their skirts were ankle-length, full, and gathered to a flat yoke extending over the breasts with full sleeves. They are red, like their gloves-and the rest of their uniforms save the white wings that both prevent them from seeing and from being seen. Their responsibilities include shopping and assisting around the house until they are lucky enough to conceive. For 10 points-name these owned-women, whose tale of life in Gilead is told by Margaret Atwood.
answer: handmaids or handmaidens
17. After abdicating in favor of his son Bindusara, he became an ascetic and traveled with other monks to southern India where he starved himself to death in the manner of orthodox Jainism. In his younger days, he overthrew the kingdom of Magadha and established the first Indian Empire. For 10 points-name this ruler of the Mauryan dynasty whose religious conversion foreshadowed that of his grandson, Asoka, to Buddhism.
answer: $\quad$ Chandra Gupta Maurya
18. Married to Christian Corry, a Marine Corps pilot, the foundation bearing her name raises money to battle bone marrow diseases, a cause to which she became dedicated after her brother died of aplastic anemia. Her greatest feat came on May 22, 1999, when she passed Elisabetta Vignotto to become the most prolific goal scorer in international women's soccer history. For 10 points-name this American star.
answer: Mariel Margret "Mia" Hamm
19. His most important letter was an answer to two charges: first, that he had broken off the relationship between the recipient's sister and his best friend, and, second, that he had deprived a childhood acquaintance of his livelihood and position. His explanation centered on Jane's muted display of affection and Captain Wickham's seedy past. For 10 points-universally acknowledge this single man-in possession of a good fortune-who was in want of a wife in Pride and Prejudice.
answer: Fitzwilliam Darcy (accept either)
20. The youngest child is to ask "Why is this night different from all other nights?", "On all other nights, we do not dip our food into condiments at all, why on this night do we dip it twice?" and two other questions. It occurs on the 15th and 16th of Nisan and commemorates the Exodus and the sparing of the Jewish firstborn. For 10 points-name this Jewish holiday or the meal at which this ritual occurs.
answer: Passover (or Pesah) or Seder [SAY-dur]
21. It lay at the northern end of a 40-mile-wide corridor that ran between the Mediterranean and the impassable Qattara Depression. After the defeat at Tobruk, the British withdrew to its strategic bottleneck. After General Auchinleck won a defensive action on July 1, 1942, both sides regrouped and, in October, Field Marshal Bernard Montgomery launched an offensive that forced the Germans into a retreat. For 10 points-name this battle that was the beginning of the end for Rommel's Afrika Korps.
answer: El Alamein
22. Pure functions of this sort give rise to abstract base classes that cannot be instantiated. Non-pure ones may be overridden within subclasses to provide polymorphism. It can also indicate whether multiple inheritance gives rise to duplicates of shared ancestor classes. For 10 points-give this seven-letter keyword from C++ also found before "museum," "memory," and "reality" when dealing with computers.
answer: virtual

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## Filoviruses Bonuses

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1. A 1999 book by Amy Knight calls this man's murder "The Kremlin's Greatest Mystery." For 10 points each-
A. Name this man, gunned down by Leonid Nikolaev in 1934.
answer: Sergei Kirov or Sergei Kostrikov or Sergei Mironovich
B. Name the city in which the murder occurred.
answer: Leningrad (prompt on "St. Petersburg")
C. Amy Knight used recently unveiled Kremlin archives to lay the blame for Kirov's murder on this man's doorstep.
answer: Josef (or losif) Vissarionovich Stalin or Dzugashvili
2. In 1967 he became intrigued with the piece "An Eighteen-Year-Old Looks Back On Life" and started sending its author, a Yale undergraduate, letters claiming to be her soulmate. For 10 points each-
A. Name this recluse of Cornish, New Hampshire.
answer: J(erome) $D$ (avid) Salinger
B. Name that undergraduate who didn't talk about her year-long relationship with Salinger until 1998 when she offered 25 of his love letters for sale to pay for her children's tuition.
answer: Joyce Maynard
C. Name the Silicon Valley tycoon, known for his Utilities, Commander, and VirusScan, who paid $\$ 156,000$ for the letters in July 1999 in order to return them to Salinger.
answer: Peter Norton
3. Identify these men with ties to the throne in Macbeth, for 10 points each:
A. This old man, with a surprising amount of blood in him, is king of Scotland at the beginning.
answer: Duncan
B. This son of Duncan is hailed as the king after the defeat of Macbeth by Macduff.
answer: $\quad$ Malcolm
C. This nobleman is murdered on Macbeth's orders after the witches prophesize that he will give rise to a whole line of kings.
answer: Banquo (do not accept "Fleance" as he is not murdered)
4. Identify the following things, for 10 points each:
A. The setting of Somerset Maugham's story "Rain," this administrative capital of American Samoa lies on the south shore of Tutuila island.
answer: Pago Pago [pronounced "pongo pongo"]
B. This style of hieroglyphic writing with lines alternating left-to-right and right-to-left is only found on Easter Island. It is currently undecipherable.
answer: Rongo-Rongo
C. In this classic video game you must dodge coconuts, skulls, snakes, and monkeys to save your girlfriend from an African ape.
answer: Congo Bongo
5. Identify these ships from 19th-century Romantic art, for 10 points each:
A. She fought at Trafalgar, but by 1838 was outmoded and had to be towed up the Thames for dismantling. Her decrepitude and the setting son symbolize Britain's flagging power.
answer: The Fighting Temeraire
B. She was a French military transport laden with soldiers and settlers for Senegal, but was wrecked by a storm in 1816. 150 passengers and crew crowded onto a raft, but only 15 survived to tell the tale.
answer: The Medusa (do not accept "The Raft of the Medusa")
C. For 5 points each-who painted The Fighting Temeraire and The Raft of the Medusa?
answer: Joseph Mallord William Turner
(Jean-Louis-André-)Théodore Géricault
6. An ideal gas undergoes a Carnot cycle between the temperatures of 600 Kelvins and 300 Kelvins. During the isothermic expansion, 1,000 joules of heat is pumped into the system. For 15 points each-
A. How much heat is given off by the system during the isothermic contraction?
answer: $\quad \underline{500}$ joules
B. How much useful work does the system do?
answer: $\quad \underline{500}$ joules
7. 30-20-10. Identify the work.
A. It was published along with a set of commentaries by Antoine Arnauld, Thomas Hobbes, Pierre Gassendi, and Pierre Bourdin collected by Mersenne.
B. It begins by describing "methodic doubt" and attempts to "prove the existence of God and the immortality of the soul."
C. The most famous line of this 1641 René Descartes work is undoubtedly "Cogito ergo sum."
answer: Meditations on First Philosophy in Which is Proved the Existence of God and the Immortality of the Soul (or Meditationes de Prima Philosophia)
8. In the four movies of the Star Wars series, dramatic action takes place on a total of seven moons and planets. For 5 points each-name any six of the seven. Do not name spaceships, asteroids, floating cities, or places that are not actually seen.
answer: $\quad$ Naboo, Tatooine, Coruscant, Dagobah, Hoth IV, Yavin IV, Endor
9. She is featured on a web page entitled "Real Moment of Science \#30: Sex Lies and Anthropologists." For 10 points each-
A. Name this scientist whose fieldwork, done at the age of 23 , was famously called into question by a Harvard anthropologist in 1983.
answer: Margaret Mead
B. That anthropologist specifically objected to the work done on this island in Oceania.
answer: Samoa
C. Name that Harvard anthropologist and author of Margaret Mead and Samoa.
answer: Derek Freeman
10. Given the Confederate Civil War general, identify the battle in which he was a casualty, for 10 points each:
A. Stonewall Jackson
answer: Chancellorsville
B. Albert Sidney Johnston
answer: $\quad$ Shiloh or Pittsburgh Landing
C. Joseph Johnston wasn't killed in this April, 1862 battle, but was wounded badly enough to take him out of action for months. He was replaced by General Lee.
answer: $\quad$ Fair Oaks or Seven Pines
11. Identify the following geographical places known as "black mountains," for 10 points each:
A. One range known as the Black Mountains may be found in Yancey County of this state; it contains Mount Mitchell, the highest point east of the Mississippi.
answer: North Carolina
B. This mountain range contains the borders of Afghanistan, Tajikistan, Pakistan, India, and China and is named from the Turkish for "Black Mountain."
answer: Karakorum or Kurra-koorrum or Karakorum Shan
C. This European region's name means "Black Mountain."
answer: Montenegro
12. He completed the subjugation of mainland lonia and was renowned far and wide for his riches, but became the last king to rule his country. For 10 points each-
A. Name this 6th century BC ruler of Lydia.
answer: Croesus
B. Name the military genius who, after masterminding the overthrow of the Median Empire, defeated Croesus in two battles and annexed Lydia for Persia.
answer: Cyrus II the Achaemenian or Cyrus the Great
C. Herodotus tells of a famous, but fictional, meeting between a young Croesus and this Athenian lawgiver who refused to call him "the happiest man in the world" until his life had ended well.
answer: Solon
13. Identify these oddball arthropods, for 10 points each:
A. Of the four subphyla of Arthropoda, this is the only one with no living members. Its heyday lasted from 540 to 245 million years ago when it was the dominant group of life on earth.
answer: $\quad$ trilobites or trilobita
B. The subphylum Crustacea consists almost entirely of marine and freshwater animals; it contains one group, however, that has become terrestrial. Name it.
answer: pill bugs or sow bugs
C. The subphylum Chelicerata contains primarily arachnids, but also contains the Merostomata, an entirely marine class of four orders that evolved so long ago they are known as "living fossils." Give the usual name of Merostomates.
answer: horseshoe crab(s)
14. Identify the Eugene O'Neill play from its opening action, for 10 points each.
A. Sons Peter and Simeon decide to leave the farm for the goldfields of California after they hear that their father, Ephraim, has remarried.
answer: Desire Under the Elms
B. General Lee has surrendered and Lavinia eagerly awaits the return of her brother and father inside the family mansion.
answer: Mourning Becomes Electra
C. Breakfast is cheerful, but strained. Mary is nervous, but references to her sleeplessness are treated with exaggerated carelessness.
answer: Long Day's Journey Into Night
15. They are sets with closed, associative binary operators such that every element has an inverse and there is an identity element. For 15 points each-
A. Name this mathematical construct.
answer: group
B. If, in addition, the operator is commutative, what seven-letter adjective is applied to the group?
answer: abelian
16. Given a brief description, identify the U.S. ship attacked at peacetime, for 10 points each.
A. During the Six-Day War, Israel attacked this electronic surveillance ship, killing 34 seamen.
answer: USS Liberty
B. In 1975, the Khmer Rouge of Cambodia captured this merchant ship.
answer: USS Mayaguez
C. In 1968, North Korea seized this vessel and held the crew prisoner for 11 months. The ship remains in North Korea to this day.
answer: USS Pueblo
17. Given a brief description, identify the boxer, for 10 points each.
A. The unified light heavyweight champion as of June 5, 1999, he is generally considered the best active boxer, pound for pound.
answer: Roy Jones, Jr.
B. He fought to a draw with Evander Holyfield on March 13, but most observers thought that he had won the bout.
answer: Lennox Lewis
C. This undefeated fighter has been a champion in the super featherweight, lightweight, super lightweight, and welterweight categories.
answer: Oscar DeLa Hoya
18. Given the American river, name both the state in which it begins and the body of water in which it terminates, for 5 points per answer.
A. Arkansas River
answer: $\quad$ Colorado and Mississippi River
B. Colorado River, of Grand Canyon fame
answer: $\quad$ Colorado and Gulf of California
C. Susquehanna
answer: $\quad$ New York and Chesapeake Bay
19. Identify these men who contributed to the artistic splendor of St. Peter's Basilica, for 10 points each:
A. Julius II chose this man as the first architect for the project. His design of a Greek cross was eventually abandoned in favor of a longitudinal church.
answer: Donato Bramante
B. This man took over in 1546 and completed the dome, but left the east side unfinished. He also created the Pietá which may be found in the first chapel on the right.
answer: Michelangelo Buonarotti
C. This man, working from 1633 to 1677 , added the Royal Stair, the baldachinno, the piazza fountain, and completed the interior arrangements of the church.
answer: Gian Lorenzo Bernini
20. Between 1219 and 1240 all of the Russian principalities were conquered by the Mongols. For 10 points each-
A. By what name was the horde known that controlled the area until 1480?
answer: The Golden Horde
B. In 1480, troops under this man faced down The Golden Horde at the Battle of Ugra; both sides fled before coming to blows.
answer: Ivan III Rurik or Ivan the Great (do not accept "Ivan the Terrible")
C. Ignominious as the battle was, it dispelled the enemies' mystique and broke their hold leaving only three widely-separated Khanates on Russian soil. Name any of those three.
answer: Kazan, Astrakhan, or Crimea
21. They are two toroidal regions around the Equator where energetic particles are trapped by the earth's magnetic field. For 10 points each-
A. Name these so-called "belts" located about 3,000 and 17,000 kilometers above the surface of the earth.
answer: Van Allen radiation belts
B. Name the particle that predominates in the lower Van Allen belt.
answer: proton
C. Name the satellite launched in 1958 that discovered the lower Van Allen belt. It was the first of the largest series of unmanned U.S. craft.
answer: Explorer I
22. Identify these three European authors bound together by a single 1993 book, for 10 points each:
A. Name the Frenchman of whose masterpiece a manuscript copy on blue paper was discovered and distributed to an exclusive club of authors, critics, and intellectuals including Boris Balkan.
answer: Alexandre Dumas pére
B. Though he is not identified by name, this Italian semiotician and novelist is clearly one of the few people to receive entry into The Club Dumas.
answer: Umberto Eco
C. This Spaniard, also known for 1999's The Fencing Master, wrote The Club Dumas.
answer: Arturo Pérez-Reverte
