

Questions by The Stephen Webb Farewell Tour, 2k6 (Stephen Webb, Shae "Eazy E" Williams, Nicholas Bittle, and Shae's Doggy), with spares from Oklahoma and editorial assistance from Matt Keller & Stephen Taylor

1. **MODERATOR:** *Read first sentence to yourself, paraphrase if needed for the audience (i.e., if kids are present)*

His sixteenth poem begins with the line "pedicabo ego vos et irrumabo", which translates as "I will fuck you in the ass and have you give me some good head." His eleventh poem insinuates that his commander in Bithynia submitted to fellatio. Not all of his poems were this bawdy; his 101st was a lament of his brother's death. For ten points, name this Roman poet who dedicated most of his erotic poems to Lesbia.

Answer: Gaius Valerius Catullus

2. His General Order No. 11 declared that "The Jews, as a class, violating every regulation of trade established by the Treasury Department, and also Department orders, are hereby expelled from the Department", which included Tennessee, Mississippi, and Kentucky. He established the office of the Surgeon General and the Department of Justice during his Presidency, which was tainted by the Whiskey Ring and Credit Mobilier scandals. FTP name this General who received the surrender of Robert E. Lee at Appomattox.

Answer: Ulysses Simpson Grant

3. He ruled an interstellar empire containing 26 stars and 78 planets, each of which had an average of 178 billion people inhabiting them. If this seems farfetched, don't worry, as one of the few sources of information about him is "Revolt in the Stars", an abortive film script, and also a closely-guarded secret. Other interesting details about him is that he hypnotized disembodied souls with God, Satan, and Space Opera in a 3-D theater for 36 days precisely- this is known as the R6 Implant and knowledge of how to break it is only available to rich people who donate money. FTP, yes, Scientologists Really Do Believe In This Guy.

Answer: Xenu (disclaimer: Author is a member of the 1<sup>st</sup> Church of Xenu)

4. It is equivalent to the Hairy Ball Theorem, which states that there is no way to place a smooth vector field on the surface of a sphere. It is also equivalent to the Banach-Tarski paradox, which allows the existence of a function which can take apart a single sphere and construct two spheres identical to the original from the pieces. FTP, name this axiom of set theory first proposed by Ernst Zermelo, which declares that for any set of non-empty sets, we may select an element of each set.

Answer: axiom of choice or AC (also accept Zorn's Lemma)

5. Guillaume Apollinaire was arrested under suspicion of involvement in the theft of this work of art. Lisa Gherardini, Isabella of Aragon, and the artist himself are all candidates for the identity of the subject. Whoever it is, this 77 by 53 centimeter oil on poplar painting's subject is possibly one of the most scrutinized persons in history. For ten points, name this portrait in the Louvre executed by Leonardo da Vinci of "a certain Florentine lady."

Answer: Mona Lisa or La Gioconda

6. Its leader received a pamphlet containing Bible passages, and from this interpreted a dream in which a man whom he referred to as Elder Brother handed him a sword and instructed him on how to slay evil spirits. Proclaiming himself to be the brother of Jesus, Hong Xiuquan [*HONG shu-CHWON*] amassed an army numbering 2.5 million which was only put down with the aid of European powers led by Frederick Townsend Ward and Charles "Chinese" Gordon. For ten points, name this rebellion in China lasting from 1851 to 1864.

Answer: Taiping Rebellion

7. (OK) The last pandemic to threaten Europe was in the 1970s, when it arrived in many Mediterranean nations via North Africa and in the Soviet Union via Afghanistan. Outbreaks in the US had been linked to contaminated oyster beds in New York. It is now thought that blood type plays a role in determining immunity, with AB being nearly completely resistant and O being the most susceptible. FTP, name this disease caused by a member of the genus *Vibrio* and characterized by profuse diarrhea.

Answer: Asiatic Cholera or Epidemic Cholera

8. The main character of this work meets a person carrying an advertisement for a "magic theater" who gives him a small book which describes the "high" spiritual, and a "low" animal, and then the title figure, who is never content to be either. The work is a book within a book, presenting the manuscript *Harry Haller's Records (For Madmen Only)*. For ten points, name this 1928 novel penned by Hermann Hesse.

Answer: Steppenwolf

9. His work *The Order of Things* opens with a detailed discussion of *Las Meninas*, and he used it as a basis to assert that every period in history has underlying conditions of truth. His first two major works, *Madness and Civilization* and *Birth of the Clinic*, studied society's attitudes towards the medical profession, while three volumes of his *History of Sexuality* were published before his 1984 death. For ten points, name this French philosopher, author of *Discipline and Punish*.

Answer: Michel Foucault

10. It was presaged by a few months by the Able Archer crisis of 1982-3, when Soviet generals misread a harmless NATO defense exercise as a prelude to war, and nearly started World War 3. It was sung by Homer in the Simpsons episode "The Heartbroke Kid", and was later covered by bands ranging from Cyndi Lauper to the B.A. Baracus Band to Goldfinger. Ranked #10 on "Best One Hit Wonders" as listed by the BBC, FTP, name this German protest song by Nena, which was recently played for a full bleepin' hour by VH1 Classic.

Answer: 99 Red Balloons (Or 99 Luftballons, or 99 Flying Balloons)

11. In formal language theory, they are equivalent to any finite state automaton and have three operations: concatenation, union, and the Kleene star. In practice, many more operations are defined, depending on the implementation. FTP, name this term that describes a string that can be used to match a set of strings, found in Unix tools like sed and grep and programming languages like Perl.

Answer: regular expressions (accept regexp(s) and regex(es))

12. He became the publisher of *Forbes* magazine in 1989 and used this as a venue to write about issues of defense and national security, including the 1990 essay *Fighting for Peace*. Earlier in his career, he served as chairman of the FTC, and was Nixon's Secretary of Health, Education, and Welfare before returning a decade later to take another cabinet post. FTP name this recently deceased man who, from 1981 until 1987, served as Ronald Reagan's Secretary of Defense.

Answer: Caspar Weinberger

13. (OK) He was the third member of his family to hold the physics chair at the Muséum National d'Histoire Naturelle and his earliest work was concerned with the plane polarization of light and the absorption of light by crystals, on which he wrote his doctoral thesis. He made his greatest discovery while investigating phosphorescence in uranium salts. In 1903, along with Pierre and Marie Curie, he won the Nobel Prize in Physics for his work on the spontaneous emission of nuclear radiation. FTP, who is this French physicist, the namesake of the SI unit of radioactivity?

Answer: Henri Becquerel

14. (OK) It opens with a scuffle outside of a D.H. Holmes Department store between a very large man, a beat-cop, and an old man. The three seem inextricably linked, as the old man becomes enamored of the large man's mother, whom he begins to court, the cop's mother begins bowling with that same woman, and the cop must investigate strange goings-on in the French Quarter, many of which are related to the large man. FTP, so goes the plot of what novel, winner of the 1981 Pulitzer Prize for Fiction, written by John Kennedy Toole?

Answer: A Confederacy of Dunces

15. In the final scene of this opera, the title character refuses to repent, a final act which has been studied extensively, and parodied in Shaw's *Man and Superman*. In the first act, the title character's servant, Leporello, tells of the hardship of serving under the immoral title character. Leporello later helps his master in his womanizing, but the title character gets his in the end after inviting a statute of the Commander to dinner, which accepts and then summons the title character to Hell. For ten points, name this opera by Mozart.

Answer: Don Giovanni

16. Phrases of the language spoken by them include "oo-nye-noh-lah" which means "Go to sleep now." and "oo-nye-ay-tay-doo?" which means "Are you hungry?". Capable of communicating through infra-red signals, a new species was released in 2005, while the original was released in 1998 by Tiger Electronics. A cross between a hamster, a cat, and an owl, for ten points, name these toys which are banned from the NSA premises, and which will have a movie released in 2006 about their Island.

Answer: Furby

17. Breaking from his earlier career focus, he interacted with Thomas Hunt Morgan, Alfred Sturtevant, and other biologists at Cal Tech, prompting his first work in the field studying the structure of hemoglobin. Later in 1951, based on the structure of amino acids and peptides, he was able to conclude that the alpha helix was the most likely structure for DNA, though he incorrectly predicted a triple helix. Popularly known as an advocate of the use of Vitamin C, FTP name this scientist who won the Nobel Prize for Chemistry in 1954 and the Nobel Peace Prize in 1962.

Answer: Linus Pauling

18. Published in the North American Review, the poem begins with a fond meditation on the calming feelings inspired by Nature, while in the end it declares to the reader to embrace death, and to "lie down to pleasant dreams". Notable because half of it was penned when the author was seventeen, and finished when the author was in its sixties, for ten points, name this meditation on death by William Cullen Bryant.

Answer: Thanatopsis

19. Officially known as "Unification or Death", this secret society founded in 1911 is popularly known by a shorter name. The movement's leader, codenamed Apis, was tried for plotting against his royal government, and then was exiled to Thessaloniki. They were denounced as nihilists by the ruling government, though their aims were more nationalistic than anarchist. Apis, a.k.a. Col. Dragutin Dimitrijevic, [*d-mee-tree-YAY-vits*], supplied arms to 15 people for their most famous assassination, but only 3 tried and 1 succeeded. FTP, name this pan-Slavic Serbian organization that helped Gavrilo Princip murder Archduke Ferdinand.

Answer: The Black Hand (accept Ujedinjenje ili Smrt but insist on correct spelling)

20. The first European to see it, Ernest Giles, called it "The magnificent pebble" - a bit of an understatement, since it is 8 kilometers around and a half a kilometer high. In the native language, it is called Uluru, and resides in Uluru-Kata Tjuta National Park. There are certain sections of it which, being important for secretive rituals by the native people, are not currently allowed to be photographed. Although commonly referred to as the world's largest monolith, it is incorrect, as Mt. Augustus in the same nation is larger. FTP, name this large rock, a famous geological landmark of Australia.

Answer: Ayers Rock [accept early buzz with Uluru]

21. In antiquity, this city-state's power and prestige attracted many artists and poets such as Sappho and Pindar, but also made it a common center of warfare in the Mediterranean. They fought with the Carthaginians multiple times, defeating them at Himera in 480 BC and Cumae in 474 BC, and fought unsuccessfully against them in the early 390s, losing many of their island possessions off of Sicily. Their fights against the Romans under the tyrant Hiero, however, are the source of one well known legend of the philosopher Archimedes building a mirror to burn a fleet. FTP, name this city-state, source of the name of a city in upstate New York.

Answer: Syracuse

22. In 1883 he went on a geology expedition to Baffin Island, which was influential in his decision to leave that field. He would later return to America and continue his study of Native American tribes, particularly the Kwakiutl. He founded the *International Journal of American Linguistics* and is known for works such as *Primitive Art* and *Race, Language, and Culture*. FTP, name this cultural anthropologist whose most famous work is *The Mind of Primitive Man*, who also had many famous pupils in Columbia's anthropology department.

Answer: Franz Boas

23. She is depicted on one of the Series B Irish pound notes as an important figure in Irish culture. She demanded that her husband be entirely without fear, meanness, or jealousy, and the last was important as she intended to keep many lovers. The Ulster cycle's treatment of her makes it appear as if she was a kind of sovereignty goddess whom every king had to marry as part of a sacred ritual, and her name was corrupted to form the English name of an alcoholic drink. FTP, name this queen of Celtic mythology, an enemy of Cuchullain.

Answer: Maeve (Accept Madb, Medb, or something reasonably near)

1. Things related to a President of the United States, FTPE:

(a) He failed in his 1912 bid with the Progressive Party. His first time around, he talked about a "square deal" and busted trusts.

Answer: Theodore Roosevelt

(b) Roosevelt's book *The Winning of the West* was influenced by this friend, the historian whose Frontier Thesis postulated that as America expanded west, the country became less European and more American.

Answer: Frederick Jackson Turner

(c) In addition to being Georgia Tech's first football coach and the namesake of a military installation in Missouri, this man was friends with Roosevelt and organized the Rough Riders with him.

Answer: General Leonard Wood

2. Charles Dickens wrote a LOT of books. Identify the following from a description, 5-10-20-30:

(a) The title character is poorly treated by Mr. Murdstone, then falls under the influence of Mr. Micawber and Uriah Heep.

Answer: David Copperfield

(b) Crisparkle's assistant, a mysterious opium dealer named Princess Puffer and the Landless twins are all suspects in the death of the title figure.

Answer: The Mystery of Edwin Drood

(c) Little Nell and her grandfather are compelled to leave the title location when they lose it to the dwarf Quilp.

Answer: The Old Curiosity Shop

(d) The plot of this novel centers on the long-standing court case of Jarndyce and Jarndyce, and is a criticism of the English judicial system.

Answer: Bleak [pause] House

3. Generally recognized as a major precursor to existentialism, this Dane introduced the concept of the "leap of faith" associated with religious beliefs. For ten points each

(a) name this author of *The Sickness Unto Death*.

Answer: Soren Kierkegaard

(b) The title of this Kierkegaard work comes from Philippians 2:12, and it begins with a study of Abraham after being ordered to sacrifice Isaac.

Answer: Fear and Trembling

(c) The first volume of this work discusses the aesthetic phase of existence, while the second volume studies the ethical phase. According to Kierkegaard, man evolves through these two phases, and concludes at the religious phase.

Answer: Either/Or

4. Name the following amino acids FTSNOP

(10) First discovered in kidney stones, this amino acid has a thiol group, and is found in most proteins in small quantities.

Answer: cysteine

(10) With a benzyl side chain, this is one of the largest amino acids, and the genetic codon for its production was the first to be discovered.

Answer: phenylalanine

(5/5) Given the one-letter abbreviations D and E, these amino acids with similar properties do not follow the standard convention of names ending in -ine. Name them F5PE.

Answers: glutamic acid (or glutamate) and aspartic acid (or aspartate)

5. Name the English composer from works for ten points each.

(a) *Hymn to Saint Cecilia*, *Paul Bunyan*, *The Young Person's Guide to the Orchestra*

Answer: Benjamin Britten

(b) *Trumpet Voluntary* and the opera *Dido and Aeneas*

Answer: Henry Purcell

(c) *Pomp and Circumstance*

Answer: Edward Elgar



6. Identify the following films featuring Cameron Diaz from quotes FTPE, five if you need a plot description.  
(10) "There was only one road back to L.A. US Interstate 15, just a flat-out high speed burn through Baker and Barstow and Berdoo, then on to the Hollywood Freeway straight into frantic oblivion: safety, obscurity, just another freak in the Freak Kingdom."

(5) Diaz features only briefly as a reporter in this drug-fueled tale of Dr. Gonzo and his attorney, who is not just some dingbat he picked up on the strip.

Answer: **Fear and Loathing in Las Vegas**

(10) "Suck my dick!" -- actually spoken by Cameron Diaz.

(5) That line was uttered by Diaz after having a gender-confusing experience by seeing the world through the eyes of a noted character actor while he was having sex with Catherine Keener.

Answer: **Being John Malkovich** [ED. NOTE: *Lucky devil.*]

(10) "Love is like a red, red rose...and I am a little thorny."

(5) Diaz's big screen debut, she plays Tina Carlyle in this film featuring Jim Carey as a sex-crazed pun-spewing superhero created by the title object.

Answer: **The Mask**

7. Name the work, 30-20-10.

(30) The work was initially banned at the request of the New York Society for the Suppression of Vice, over a scene depicting the title character masturbating. That ban was later overturned by US District Judge John M. Woolsey.

(20) That masturbation scene is in a stream-of-consciousness chapter entitled *Proteus*. Other chapters include *Penelope* and *Lestrygonians*.

(10) This James Joyce work tells of a day in the life of Leopold Bloom and Stephen Dedalus, who had both been introduced in an earlier work.

Answer: **Ulysses**

8. So, you say want a revolution? Well, you know, a lot of 19th century Europeans all wanted to change the world. FTPE:

(a) Revolutions erupted all over Europe in this year, during the "Springtime of the Peoples."

Answer: **1848**

(b) This movement went through its last gasps in 1848, with its namesake document acquiring either 1.9 million or 5.7 million signatures. Its leader, Feargus O'Connor, claimed the latter figure.

Answer: **Chartism** or **Chartists**

(c) When the revolutions spread to Hungary, he became the point-man for Hungarian nationalism, and eventually became the President-Regent in 1849.

Answer: Lajos (or Louis or Ludwig or Laius) **Kossuth** [KAW-shoot, but be lenient on pronunciation]

9. Answer the following about temperature for ten points each.

(a) This law of thermodynamics implies that there exists a consistent temperature scale, as it declares that if A is in equilibrium with B and B with C, then A is in equilibrium with C.

Answer: **zeroth** law of thermodynamics

(b) A practical theoretical definition for temperature is provided by these hypothetical engines, which their French formulator proved to be the most efficient possible heat engines.

Answer: **Carnot** engines

(c) This distribution provides the likelihood of a particle having a particular energy based in large part on the temperature of the system.

Answer: **Maxwell-Boltzmann** Distribution

10. FTPE name these American rivers, and no, none of them are the Mississippi.

A: This 2nd longest river is occasionally mentioned as part of the same system, since they meet near St. Louis.

Answer: **Missouri** River

B: It meets the Allegheny in Pittsburgh to form the Ohio River, hence the name Three Rivers Stadium.

Answer: **Monongahela** River

C: This river, with the Tennessee-Tombigbee Waterway, offers an alternate route into the Ohio River watershed, and is named for the Gulf of Mexico port city it flows towards.

Answer: **Mobile** River

11. How much do you know about the Argo's crew? Your genial quizmaster would reply, Argo's crew yourself. FTPE:  
5: This man led the Argonauts

Answer: **Jason**

10: The name of this Argonaut, who was left behind by the Argo, is the same as a one-eyed giant in Greek myth.

Answer: **Polyphemus**

15: Name either of the Boreads, who were winged heroes who helped rescue Phineas from the Harpies. If you want a hint, one gave his name to a port city in northern France.

Answer: **Calais or Zetes**

12. (OU) Bonding is just as important in chemistry as it is in households with more than one male. F10PE:

A. The high concentration of atoms of the namesake element of this type of bonding is responsible for the high boiling point of water and it is a special form of dipole-dipole interaction.

Answer: **Hydrogen Bond**

B. Atoms with double or triple bonds have a single sigma bond and usually one or more of these bonds, which are weaker than sigma bonds, but which, when combined with sigma bonds, are stronger than either bond is alone. They are named for a Greek letter and are found in benzene.

Answer: **Pi Bond**

C. Found in organic compounds, such as aziridine and cyclopropane, this type of bond is named after the shape that forms when the normal hybridization rate of two atoms making a bond have modified s-orbital character.

Answer: **Banana Bond or Bent Bond**

13. Name the following connected authors for ten points each.

(a) This staunch supporter of the Chilean Communist party and recipient of the 1971 Nobel Prize in Literature penned *20 Love Poems and a Song of Despair*.

Answer: Pablo **Neruda**

(b) Supporting Neruda in his early writing career, this Chilean educator, author of the works *Desolacion* and *Sonnets of Death*, won the Nobel in 1945.

Answer: Gabriela **Mistral**

(c) Neruda's leftist leanings were cemented by the execution of this author by forces loyal to Francisco Franco. He wrote the plays "Blood Wedding" and "The House of Bernarda Alba".

Answer: Federico **Garcia Lorca**

14. The Americas were explored by a pretty diverse group of people. FTPE:

(a) This is the name Leif Erikson gave to an area of North America that might have been in Newfoundland. Hellulad and Markland were also found around the same time.

Answer: **Vinland**

(b) This Englishman sought a northwest passage via several routes. He was abandoned by his crew in 1611 in the body of water named for him.

Answer: Henry **Hudson**

(c) Peter the Great hired this Dane to explore the northeastern extremes of Siberia. He did not fully grasp the significance of the land he found on the other side of his namesake strait.

Answer: Vitus **Bering**

15. Name the following old buildings for ten points each.

(a) Iktinos and Kallikrates both worked under Phidias for the construction of this temple to Athena built on the Acropolis.

Answer: **Parthenon**

(b) The burial place of Arjumand Banu Begum, this building combines elements of Hindu and Persian architecture, and is considered the finest example of Mughal construction.

Answer: **Taj Mahal**

(c) Now known as the Ayasofya Museum, it is a former Eastern Orthodox church originally designed by Isidore of Miletus and Anthemius of Tralles.

Answer: **Hagia Sophia**

16. Bonus time: Given a tagline or taglines from a comic book movie, name the movie FTPE.

A: "Part Man. Part Vampire. All Hero." and "Sometimes it takes one to kill one."

Answer: Blade

B: "A Rogue. A Scientist. A Spy. A Hunter. A Vampire. A beast. An Immortal."

Answer: League of Extraordinary Gentlemen

C: "This ain't no cartoon." and "They're mean, green and on the screen."

Answer: Teenage Mutant Ninja Turtles

17. Moving backwards in time over the past 2 centuries, answer the following about South Africa FTPE:

A: Although this African National Congress chairman shared a Nobel Peace Prize, his second wife was less peaceful, convicted for a kidnapping that resulted in a fatal beating.

Answer: Nelson Mandela

B: This 1895 raid was intended by Cecil Rhodes to provoke an uprising amongst the British in the Transvaal, but it failed.

Answer: Jameson Raid

C: 350 Zulus died, as did 17 British, in this decisive battle of the Zulu War, depicted in the memorable 1964 film *Zulu*.

Answer: Rorke's Drift

18. Identify the following contributors to quantum field theory for ten points each.

(a) This man's namesake field describes spin-1/2 particles. He is equally famous for his namesake notation and his early contributions to quantum mechanics, and for splitting the 1933 Nobel Prize with Schrodinger.

Answer: Paul Adrien Maurice Dirac

(b) He won the Nobel Prize in 1965 with Schwinger and Tomonaga for his work in the development of Quantum Electrodynamics. He also developed a form of perturbation theory based on his namesake diagrams.

Answer: Richard Phillips Feynman

(c) Along with David Gross and David Politzer, this man won the Nobel Prize in 2004 for his work on Quantum Chromodynamics. Current research interests focus on anyons, particles that are a mixture of bosons and fermions.

Answer: Frank Wilczek

19. Identify the following works of the Middle Ages for ten points each.

(a) Telling the story of the Battle of Roncevaux Pass and the death of the title character, this is considered to be the oldest major work of French literature.

Answer: Song of Roland or Le Chansons de Roland

(b) This compilation of Anglo-Saxon history was penned by the Venerable Bede, and was completed in 731.

Answer: Ecclesiastical History of the English People or Historia ecclesiastica gentis Anglorum

(c) Translated into English by Lady Charlotte Guest, this is a compilation of medieval Welsh prose stories.

Answer: Mabinogion

20. (OU) F10PE, identify the following laws or rules of calculus.

1. One of the first laws that calculus students learn, it states that the integral from a to b of  $f(x)dx$  is equal to  $F(b) - F(a)$ .

Answer: First Fundamental Theorem of Calculus

2. This theorem states that if  $h(x) = f(x) = g(x)$ , and the limits as  $x$  approaches  $a$  of  $h(x)$  and  $g(x)$  are both equal to  $L$ , then the limit as  $x$  approaches  $a$  of  $f(x)$  must also be equal to  $L$ .

Answer: Squeeze Theorem or Pinching Theorem or Sandwich Theorem

3. Let  $f$  be a continuous function between  $a$  and  $b$ , and the derivatives are defined everywhere between  $a$  and  $b$ . If  $f(a) = f(b)$ , then there must exist a point  $c$  in between  $a$  and  $b$  such that  $f'(c) = 0$ .

Answer: Rolle's Theorem

21. FTPE answer the following about the native religion of Japan.

A: Meaning "The Way of the Gods", this is the name of Japan's native religion.

Answer: Shintoism

B: Give the name of one of the objects of worship in Shintoism, which means "the sacred spirits which take the form of things and concepts important to life, such as wind, rain, mountains, trees, rivers and fertility".

Answer: kami

C: This sun goddess is the most well known in the Shinto pantheon and all Japanese emperors trace decent to her.

Answer: Amaterasu

22. Around 1100 AD, a new Christian tradition was created in Jerusalem. FTPE:

a) Name this military order that originally protected Christians in the Holy Land but since then has protected some Mediterranean Islands, at least until their most famous one was taken by Napoleon.

Answer: Knights Hospitaller (accept also Knights of Malta, Knights of Rhodes, Cavaliers of Malta, and Order of St. John of Jerusalem)

b) In 1653, the Knights of Malta came into possession of St. Croix, which is now part of the U.S. controlled portion of this Caribbean island group.

Answer: Virgin Islands

c) Before they possessed Malta, they ruled this Greek Island in the Aegean, but they were kicked out by the Turks. The island is probably more famous for a giant statue.

Answer: Rhodes

23. Here is an obligatory bonus on units. Only I'm going to give you the definition of an SI unit in terms of how it is defined, and you tell me the unit. For example, if I said "the distance light travels in  $1/299,792,458$  of a second" you would say "meter".

(a) 9,192,631,770 periods of the radiation corresponding to the transition between two hyperfine levels in the ground state of Cesium-133.

Answer: second

(b) The work required to move an electric charge of one coulomb through an electric potential difference of one volt.

Answer: joule

(c) A rod of platinum and iridium alloy of 39 mm of diameter and height.

Answer: kilogram (do not accept gram)