The Questions Concerning Technology
By WB
Round 1

1. **This man gave a speech where he told the audience "Don't worry folks. We got buses lined up outside to take you back to the insane asylum after all this is over!" Orthodox Jew Reginald Dallaire once sued this man's company after this man's dress code forced Reginald shave his beard off. This man's son along with Jay Coburn accomplished the first circumnavigation of the Earth in a helicopter and the government of North Vietnam once said this man had "evil intentions" for trying to** fly in Christmas dinners to Vietnam on a chartered plane. This man's second major company was acquired by Dell in 2009 for $3.9 billion. This man remarked "I'm investing in quality" after putting up 20 million dollars to become the first major investor in Steve Job's NeXT. He hired commandos to rescue his employees from the 1979 Iranian Revolution. His first company was acquired by GM in 1984 and that company made billions by computerizing Medicare claims processing. This founder of Electronic Data Systems once forewarned of the "Giant sucking sound" of jobs moving to Mexico because of NAFTA. For 10 points, name this third party candidate in the 1992 U.S. Presidential Election.
ANSWER: Henry Ross **Perot** Sr.

2. **While these devices are not usually used to transport people, the Betz factor gives their optimal behavior. The Darrieus type of these supposedly look like a egg-whisk, but I don't see the resemblance. The Discovery Tower in Houston originally had 10 of these devices installed and three of these are built into the top of London's Strata SE1. It's not a train, but the Chinese have started selling "maglev" based versions of these machines. In 2011, it was discovered that Chinese manufacturer Sinovel had stolen AMSC's software for these contraptions. These machines are classified based on having a** vertical or horizontal axis design. Components of these include a gear box and a hub. Biglow Canyon and the Tehachapi Pass are home to large installations of these machines. A controversial stand of these is planned to be placed offshore in Nantucket Sound. They extract kinetic energy using their blades. For 10 points, name these devices that convert the movement of air into electricity.
ANSWER: **wind turbine**

3. **South African Charl Fourie invented a version of this device for fending off carjackings, an effort that won Fourie the 1999 Ig Nobel Peace Prize. An experimental 56 foot one of these was called the Livens Large Gallery. The modern version of this weapon was invented by Richard Fiedler. During WWII, the British utilized a mechanized version of this weapon known as Churchill's Crocodile. The** Song Dynasty utilized a predecessor of this weapon called the Meng Huo Yu. The U.S. Military stopped using these in 1978. The Byzantines used a similar device in naval battles whose chemical component is still debated but is believed to consist of a naphtha type oil. For 10 points, name this weapon used to set fire to your enemies.
ANSWER: **flamethrower**

4. **An audience member at the premiere of this man's first major work declared it to sound like a "barnyard." One of his sonata's includes a "Prolog to Strophe I" movement. He is the less famous of the two collaborators on a piece commissioned by Antoinette Vischer for Sylvia Marlowe. That work by this man used 64 slide projectors, and 11 silk screens. This man envisioned the aforementioned work to be a dicegame that randomly moved between fragments by Beethoven, Schoenberg, Ives, and others. While a working at the University of Illinois, he incorporated the mathematics of rubber molecules into his *String Quartet No. 4* which is also called the *Illiac Suite*. A work of his includes a part entitled "The Decay of Information" which reflects this man's fascination with information theory. With John Cage, he created HPSCHD. He wrote works likes *Algorithm 1* and *Computer Cantata*. For 15 points, name this pioneer of computer music and creator of MUSICOMP.**
ANSWER: Lejaren "Jerry" **Hiller**

5. **Henry Baker wrote a 1991 letter to the ACM Forum that embodied much of this concept. Its name was coined by Carlo Strozzi, but it its modern usage comes from Eric Evans. It's not cloud storage, but Basho Technologies' main product is an example of this phenomenon. One prominent example of this includes** GridFS and helped popularize the term "autosharding." Neo4j is an example of this concept applied to graphs. Damien Katz and Richard Hipp developed an interface for JSON based examples of these systems. Supporters of these systems claim they offer better horizontal scalability. These systems tend not to aspire having ACID characteristics like consistency. A common approach used by practitioners of this anti-philosophy is to organize

documents into collections and/or use key value stores. Popular members of this movement include Cassandra and Mongo. For 10 points, name this sort of stupid modern movement to eschew a certain database language and other relational database concepts.
ANSWER: **NoSQL**

6. **Cory Portnuff of the University of Boulder at Colorado conducted a study of the peer pressure associated with this device and came to the conclusion that it can cause real physical damage. Burst.com sued the maker of this physical product over the use of Burst.com's patents in this device. HP planed to release an HP Blue version of this product, unfortunately it was not blue. Of the myriad of products utilizing the PortalPlayer 5002 chipset, early versions of this product line were the most successful. A large chunk of this device's software initially came from Pixo. It has came with bundled** Parachute and Brick games. When it was first released, one of its biggest competitors was the Nomad. The third generation of this product introduced a 30 pin connector format. This physical device helped popularize AAC files. The classic version of this product utilized a hard drive while other versions are flash based. Several iterations of this product used the click wheel as an interface. This product has had mini, nano, and shuffle varieties. For 10 points, name this portable music player from Apple.
ANSWER: **iPod**

7. **As of August 2011, the website at this character's name dot com has a tiled animated gif background of a drunk man wearing a small black hat like object trying to dance at a bar. Another character from this character's fictional reality is not informed that the pizza had arrived and is offered crust in place of the pizza, causing him to collide with this character, which essentially kills this character. This character is first encountered in a walk-in closet** combined with a fitness center where he gives his rendition of *Gangsta Love*. The aforementioned pizza scorned man is assaulted by "I Gotta Feeling" as a part of this character's ghost haunting him with the Black Eyed Peas. This character is asked "What's Hot?" by its creator, Tom Haverford. For 10 points, name this music playing robotic vacuum cleaner on *Parks and Recreation*.
ANSWER: **DJ Roomba**

8. **Brown Clarke and Grumberg gave the formula that characterized these constructs up to bisimulation. These structures are considered "fair" when their definition is made a quadruple by the inclusion of fairness constraints. In** computation tree logic, these are the M in formulas of the form M comma s bar equals p where s is a state and p is a state formula. The transition relation in these constructs is defined for each state and each state is labeled with the boolean propositions that hold in that state. For 10 points, name these structures in model checking derived from the semantics of the man who wrote *Naming and Necessity.*
ANSWER: **Kripke** structure [or K**ripke** semantics; or **Kripke** model; prompt on **temporal** structure]

9. **One man who worked in this place was tormented by a ratchet called " the corpse reviver." One building in this place had a front gate that when opened, a windmill would be triggered to pump water into a reservoir. This place contains Sarah Jordan's Boarding House and Christie Street. For a time, this place was the home of Ludwig Bohm and Francis R. Upton.** At the end of 2011, a city that shares its name with this place became the new home of Facebook headquarters. One man who lived in this place supposedly did so because it was a high point on the Pennsylvania Railroad. This place is located in a city once called Raritan Township. One facility located here was established with monetary help from Western Union. This neighborhood was the birthplace of the electric railway, carbon transmitter, and the megaphone. For 10 points, name this location in Edison, NJ that was once home to a wizard.
ANSWER: **Menlo Park** New Jersey [prompt on _Edison_ New Jersey; prompt on "Raritan Township"]

10. **The Olmar Company makes a 6000 x 22000 mm one of these machines for use in making airplanes. The Ritter M9 is one of these machines and Astell is a maker of these. SporAmpule is a biological indicator used to asses these machines. Typically, they have two modes of operation**, gravity and liquid. Diagonal stripes or other markings appear on special tape named for these devices after the tape has been through one of these machines. These devices have a sealable door, a pressure gauge, and a steam source. A common preprogrammed cycle on these is 15 minutes at 121 degrees Celsius. For 10 points, name these machines used to sterilize lab equipment.
ANSWER: **autoclave**

11. **William Franklin is a leading proponent of using the non-lethal guard variety of these super-machines as "a part of integrated sheep protection." Unfortunately, one prototype of this product, *Hemiauchenia*, didn't**

do so great in the North American market. As of 2011, the most advanced single domain botulinum A neurotoxin detectors are derived from one component of these apparatuses since that component of these units is missing the light chain. One special edition of this product is the Ccara and sample size units are called crias. One of these was used for branding by a company started by Justin Frankel. That startup was bought by AOL, was called Nullsoft, and made Winamp. One common complaint about these is their defect where they forcibly eject water onto the user's face. Uses of these assemblages include transportation and fiber production. They are sometimes confused with related developments, such as the vicuña and the alpaca. For 10 points, name this cute critical component of the Incan civilization.
ANSWER: **llama**s

12. **One of the works that lays out this problem includes a comparison between one group's inclination to put roosters that lay eggs on trial and another groups interpretation of such roosters as omens. This problem's namesake wrote a work on it called _The Grand Titration_. One answer to part of this problem is Mark Elvin's high-level equilibrium trap, which proposes that high** population densities prohibit centralization and productivity increases. The namesake of this conundrum is the subject of a Simon Winchester biography titled after his "love." Its namesake tried to answer this question in part by noting how in some lineages of thought, natural law and natural science have a common origin. This quandary's namesake, a British biochemist, ran a Science Co-operation Office in Chongqing. For 10 points, name this question that asks why despite having an initial technological advantage, China fell behind the west in science for hundreds of years.
ANSWER: **Needham** question [prompt on "why did china fall behind the west" and the like cause THINGS HAVE NAMES]

13. **A Coca-Cola executive claimed that listening to the creator of this product "made him feel like his hair was on fire" while an executive of a company partially responsible for this product exclaimed "Holy Toledo! This is big" upon being pitched this. Nikita Pashenkov created a turntable whose cartridge component used the circuitry from this product. A database of customer information resulting from this was hacked leading to the distribution of $10 gift certificates at an associated retailer. The** Dallas Morning News notably added the media used by this to its issues. This was the brainchild of J. Jovan Philyaw and the company DigitalConvergence. Most versions of this attached via PS/2 to a PC. This product was distributed by mail to readers of magazines like Wired and given away at RadioShack. By scanning an ad with it, the user would be taken to the advertiser's website. For 10 points, name this feline barcode reading flop.
ANSWER: :**CueCat** reader

14. **Birger Hatlebakk created Moxy Engineering, a company that specializes in making these. The largest one of these machines currently in production is the 797F. Water-level and heaped refer to two important measurements relating to them. Some types of these include a** drawbar to control a pup, while the articulated forms are called yukes. Those forms are related to versions with a transfer trailer. Their capacity is usually reported in terms of cubic yards. They use hydraulic cylinders to raise and lower the rear namesake body. For 10 points, name these vehicles that transport material like sand or rock and then offloads it by raising the rear part of the vehicle up allowing gravity to pull down the load.
ANSWER: **dump truck**s [or **dump truck** bodies]

15. **Six air inclusions are found in the structure of examples these devices based on a grapefruit microstructure. Chirping alters the variational period in the structure of the Bragg equipped type of these objects. They are primarily driven by attached VCSELS.** These objects are dopped with Erbium and they make up SONET links. WDM allows these objects to be bidirectional and increases the amount of work they can do. They can be single or multimode depending their size and underlying materials. These objects consist of a core surrounded by cladding with a different dielectric. In the United States, a fair amount of unused "dark" this exists in the ground. The original concept for the Thunderbolt connector used this type of medium. These devices work thanks to total internal reflection. For 10 points, name this light based communication medium used by FiOS.
ANSWER: **fiber optic** cable [or **optical cable**]

16. **General G.C. Bruce is supposed to have given Tenzig Norgay one of the two instances of these items that Tenzig would strangely use both of at once. Aaron Lufkin Dennison introduced interchangeable parts into the manufacture of these devices. The first TV commercial ever aired was for one of these devices. COSC is an organization that tests and certifies these devices.** George Roskopf invented a cheap way to manufacture a version of this device. One of the largest 19th century American producers of these objects was the Waltham Company. The Radium Ladies suffered horrible medical problems as a result of making one type of these items that

were painted with radium. Manufacturers of these machines include Bulova, Omega, and Seiko. The second half of the 20th century saw the use of quartz oscillators in these devices. For 10 points, name these portable keepers of time.
ANSWER: **watch** [or wrist**watch**; or pocket **watch**; prompt on **clock**; prompt on **timepiece**]

17. **The Dactar was a clone of this system. Coke made a game for this system where you have to defeat Pepsi. In this platform's** *Glacier Patrol***, one must stop aliens who plan to trap the Earth in a giant wall of ice.** *Mogul Maniac* **for this platform utilized the Joyboard, which users would stand on to control skis in the game. The main processor in this system was the MOS 6507. One way to run custom programs on this platform was** MagiCard. Sears rebranded this product as the Tele-Games. This system initially came bundled with *Combat*. The leftover cartridges from notorious E.T. the Extra-Terrestrial video game for this system were buried in a New Mexico landfill. One of the most successful games for this system was based around jumping over holes. That game was *Pitfall!*. This platform allowed people to play *Space Invaders* at home. The best selling game for it was *Pac-Man*. For 10 points, name this game system released in 1977.
ANSWER: **Atari 2600** [or **Atari V**ideo **C**omputer **S**ystem]

18. **The founder of this company once had to track down a copy of Swedish Windows XP because their product had a bug that only manifested on that version of XP. Derek Newton discovered a possible security flaw in the way this company's product stores authentication credentials in a config.db file. In May 2012, this company held an event where participants had to plot coordinates on a Google map that converged on Macchu Picchu. The founders of this company once drove a Zipcar Prius to a meeting where they rebuffe**d Steve Jobs attempt to buy their company. This company's use of deduplication across users allowed people to access data they didn't posses if they knew the hash value of the data. This company founded by Drew Houston is built upon Amazon S3. This company's web interface uses a cake icon for "get started", and a rainbow icon for sharing. Competitors to this company's services include Cubby, SkyDrive, and Google Drive. If users refer a friend, they get an extra 500 megabytes. For 10 points, name this popular cloud storage and sharing company.
ANSWER: **Dropbox**

19. **Later editions of this book include an 18th chapter that lists each of the arguments from the original work so one can decide whether they are "true or false." It compares great designers to Salieri and Mozart because they create smaller and simpler structures. It cites the work of Sackman, Erikson, and Grant on the performance abilities of a certain** profession. This work gives a rule of thumb of 1/3, 1/6, 1/4, 1/4 for the use of time. An anniversary edition of this work includes its author's paper "No Silver Bullet." This work devotes a chapter to "the second system effect" which is the tendency of second systems to be overdesigned. It calls for the use of good workbooks and proper communication. It notes that bringing in additional women in will not make a child gestate in less than nine months. Charles Knight's mural for the La Brea Tar Pits, which shows ground sloths about to be attacked by saber tooth tigers, is used for the cover of this book, reflecting how the first chapter is about tar pits. For 10 points, name this book by Fred Brooks that claims that incorporating more engineers in a behind schedule software project can make the situation worse.
ANSWER: *The **Mythical Man-Month**: Essays on Software Engineering*

20. **The team that developed this product line included Steve Furber and Robert Heaton. The designer of this still current product line originally created it for use with Archimedes, which was a successor to the** BBC Micro. The input to this product can be shortened through Thumb. Current features include Jazelle JVM acceleration and the NEON SIMD engine. The most advanced member of this product line is the A15. Licensed versions of this product are the key component Exynos, Snapdragon, and Apple's A5 SOCs. Windows 8 introduces support for this architecture that is the primary platform for Android. For 10 points, name this microprocessor design that serves as the basis for most cellphone CPUs.
ANSWER: **ARM** [or **Acorn RISC Machines**; or **Advanced RISC Machines**]

Tiebreaker:
IN-D Media's iPad App dedicated to this place contains an introduction by Margo Stipe and a video "featuring Bruce Brooks Pfeiffer." both of whom work for organizations dedicated to the man who conceived of this place. In May 2012, First Solar announced the Energizing this place plan, which will place solar panels at this place which is located in the same state as First Solar headquarters. The main structure at this place was constructed using rocks from the area around the McDowell mountains. The Garden Room in this place contains furniture designed by its architect. For 10 points, name this building designed by Frank Lloyd Wright and built in the Arizona desert.

ANSWER: **Taliesin West**