

(E) Academic Bee Round 2

Regulation Tossups

(1) The application of this effect in astronomy results in redshift and blueshift. This effect is seen when ambulance sirens gain in pitch as they approach a listener. For the point, identify this effect, named for an Austrian physicist, in which the frequency of a wave changes in relation to an observer.

ANSWER: **Doppler** effect (or **Doppler** shift; accept Christian **Doppler**; prompt on "red shift" or "blue shift" before mentioned)

(2) This building, which contains a staircase to the Grand Central subway station, competed with 40 Wall Street in terms of height and was the world's tallest building for 11 months in 1930 before being surpassed by the Empire State Building. For the point, name this New York skyscraper named for a car company.

ANSWER: **Chrysler** Building

(3) This author of *Something Wicked This Way Comes* and *Dandelion Wine* created a protagonist who runs from the Mechanical Hound after killing Captain Beatty. That character is Guy Montag who lives in a dystopian world created by this author in which books are burned. For the point, name this U.S. science fiction author of *The Martian Chronicles* and *Fahrenheit 451*.

ANSWER: Ray **Bradbury** (or Ray Douglas **Bradbury**)

(4) These objects are represented at the lower left corner of a Hertzsprung-Russell diagram. These objects experience accretion in the proposed nova classification type One A-X. The mass of these objects cannot exceed the Chandrasekhar [[chahn-drah-SEH-kar]] limit, and Sirius B is the nearest known type of these "fossil stars." For the point, name these small, densely packed stars that are less massive than neutron stars.

ANSWER: **White Dwarf** (accept **Degenerate dwarf**; prompt on "dwarf" or "star")

(5) While this man was a senator of his country, and a former president, he was discovered to have over 100 overseas bank accounts, dying while facing 300 human rights and tax evasion charges. That senatorial position had been achieved through a Constitution this man passed in a 1980 referendum. Ruling as the head of a military junta since September 11, 1973, for the point, who was this Chilean dictator who deposed Salvador Allende [[ah-YEN-deh]]?

ANSWER: Augusto **Pinochet** [[pee-noh-SHEH]] (or Augusto José Ramón **Pinochet** Ugarte)

(6) This element is the characteristic metal of Grignard [[gree-NYARD]] reagents. This element's hydroxide is used as an antacid and marketed as a namesake "milk." In a flame test, this element produces a bright white light. For the point, name this light alkali earth metal whose atomic number is 12 and symbol is Mg.

ANSWER: **Magnesium** (accept **Mg** before mentioned; prompt on "Milk of magnesia"; do NOT accept or prompt on "Manganese")

(7) This man was repelled by a coalition of Scandinavian nations and Lithuania while trying to invade the title region in the Livonian War. This ruler established the *Oprichnik* [[oh-PREECH-neeek]] secret police to keep the *boyars* in line, and this Rurikid [[ROOR-ih-kid]] committed the Massacre at Novgorod. For the point, name this "Fearsome" 16th-century ruler, the first czar of Russia.

ANSWER: **Ivan IV** Vasilyevich (or **Ivan the Terrible**; or **Ivan Grozny**; or **Ioannes Severus**; prompt on "Ivan")

(8) This author adapted their essay "Pattledom" into the play *Freshwater*. This founder of the Hogarth Press wrote a stream-of-consciousness novel that follows a group of six friends titled *The Waves*, and this author depicted members of the Ramsay family in *To the Lighthouse*. For the point, identify this British author of *A Room of One's Own* and *Mrs. Dalloway*.

ANSWER: Virginia **Woolf** (or Adeline Virginia **Woolf**; or Adeline Virginia **Stephen**)

(9) One example of this type of program used the file extension of a Skype unit installer and was nicknamed R2D2. Programs of this type may use an invalid certificate authority before waiting for contact from a server. These programs get their name from their use of legitimate-seeming downloads to infiltrate a system. For the point, identify this type of malware with a name that comes from a mythical Greek construct containing hidden soldiers.

ANSWER: **Trojan** Horse (accept **Trojan**; prompt on "malware")

(10) One figure in this culture has his head replaced with a gourd after being decapitated by a bat god. A god from this culture is lured with a fake crab and has his teeth replaced with maize. A myth from this culture depicts a group of lords losing a ball game to the Hero Twins, a story collected in the *Popol Vuh* [[POH-pul VOO]]. For the point, name this Mesoamerican culture whose calendar predicted the world would end in 2012.

ANSWER: **Mayans**

(11) One variant of this religion believes that a *vevè* [[veh-VAY]] pattern can invoke Papa Legba, a spirit worshipped by its followers. Baron Samedi [[sah-meh-DEE]] is a figure in this religion whose male and female officials are called *oungan* [[oon-GAHN]] and *manbo* [[mahn-BOH]]. For the point, name this religion which is often associated with zombies and namesake dolls sometimes stuck with needles.

ANSWER: **Voodoo** (accept specific types of **Voodoo**; accept **Vodun**; accept **Voodoo** doll)

(12) Some of these objects, adapted for Muslims, are used specifically to indicate the direction of the Qibla [[KEE-blah]], and an azimuth can be ascertained from these objects, one of which is displayed on NATO's flag. For the point, name these objects, which are often called "roses" on maps, that point to the Magnetic North Pole.

ANSWER: **Compasses** (accept **Compass** Rose)

(13) This title character is said to be the incarnation of the "Shaker God" by a man who believes himself to be the archangel Gabriel. After this character destroys the *Pequod*, the only thing remaining intact is Queequeg's [[KWEE-kwaygs]] coffin. For the point, name this creation of Herman Melville, a giant white sperm whale and obsession of Captain Ahab.

ANSWER: **Moby Dick** (prompt on "Whale" or "The White Whale")

(14) This man was accused of bigamy when he eloped with the already-married woman Rachel Donelson Robards. A museum devoted to this man can be found at his Tennessee home, the Hermitage. Even though the War of 1812, was officially over, this man became a U.S. hero after winning the Battle of New Orleans. For the point, name this seventh president of the United States.

ANSWER: Andrew **Jackson**

(15) In *The Legend of Korra*, this character passes the throne to his daughter, Izumi, and travels the world on his dragon as an ambassador for peace. This character first left home with his Uncle Iroh in search of Aang and is known for the burn scar on his left eye caused by his father. For the point, name this character, the Crown Prince of the Fire Nation from *Avatar: The Last Airbender*.

ANSWER: Prince **Zuko** (accept Firelord **Zuko**)

(16) After a local farmer witnesses one of these accidents, the primeval spirit Thalassa admonishes him for criticizing her, and she says, "By nature I am as calm and safe as the land." After repeatedly calling his lover, Alcyone [[al-SY-oh-nee]], "Hera," the mythic figure Ceyx [[SEE-iks]] died in this specific type of accident caused by a vengeful Zeus. The consuming of the sacred cattle of Helios leads to a storm being sent to cause, for the point, what type of accident which kills most of Odysseus's crew members?

ANSWER: **Shipwreck** (accept reasonable equivalents)

(17) In one work, this author claimed that the anaconda was superior to humans. This author of *Letters from the Earth* retold the Fall of Eden in *The Diaries of Adam and Eve*. This author described a fingerprinting enthusiast in *Pudd'nhead Wilson* and an engineer who travels to Camelot in *A Connecticut Yankee in King Arthur's Court*. For the point, identify this American author who created Huckleberry Finn and Tom Sawyer.

ANSWER: Mark **Twain** (or Samuel Langhorne **Clemens**)

(18) Hermann von Helmholtz championed this man's statement that the human ear perceives sound as a set number of pure harmonic tones, known as his "acoustic law." In electromagnetics, this man's namesake law describes the proportionality between voltage applied across a conductor and its electric current. For the point, name this German scientist, the namesake of the SI Unit for electrical resistance.

ANSWER: Georg Simon **Ohm** (accept **Ohm**'s Acoustic Law; accept **Ohm**'s Law)

(19) This man rose to prominence after arranging for the release of two men following the Hinton Johnson affair. This man controversially described the JFK assassination as "chickens coming home to roost" and gave the speech "The Ballot or the Bullet." For the point, name this one-time member of the Nation of Islam who was assassinated in the Audubon Ballroom and had replaced his last name with a single letter.

ANSWER: **Malcolm X** (or **Malcolm Little**; accept either underlined portion in either answer; accept el-Hajj Malik el-**Shabazz**)

(20) The Erg of Bilma is located in this geographical feature's region of Ténéré [[teh-NEH-reh]]. Rock art is found in this feature's shelters of Iheren and Tahilahi. The Atlas Mountains are located in this desert's Maghreb region, and it is home to the nomadic Tuareg [[TWAH-reg]] people. The cities of Gao [[GOW]] and Timbuktu can be found in, for the point, what largest, hottest desert in the world, located in North Africa?

ANSWER: **Sahara** Desert (or **as-ṣahrā'** al-kubrā)

(21) The computation of this quantity in an equilateral triangle involves a fraction of the square root of 3 over 4. This quantity for a triangle can be calculated by multiplying the semi-perimeter and the inradius. For any regular polygon, this quantity is equal to one half times the apothem [[ah-PAH-them]] times the perimeter. For the point, name this quantity, which for a circle equals pi times the radius squared.

ANSWER: **Area**

(22) This author wrote a short story collection in which mysteries are solved by Mr. Satterthwaite and Harley Quin. For 11 days in 1926, this author's disappearance made worldwide news before she was discovered in a hotel with no recollection of the incident. *The Mousetrap* was written by, for the point, what British writer who created the detectives Miss Marple and Hercule Poirot [[pwah-ROH]]?

ANSWER: Agatha **Christie** (or Agatha Mary Clarissa **Christie**; or Agatha Mary Clarissa **Miller**; accept Lady **Mallowan**; accept Mary **Westmacott**)

(23) This composer created a work that tells of a faithful wife rescuing her husband, Florestan, in their only opera, *Fidelio*. This composer created a piano sonata meant to evoke a phenomenon on Lake Lucerne, as well as a "Fate knocking at the door" motif for their 5th symphony. For the point, identify this German composer of *Moonlight Sonata*.

ANSWER: Ludwig van **Beethoven**

(24) Equations regarding these phenomena by Pierre Simon-Laplace describe the Coriolis Effect. The "rule of twelve" is used to calculate and measure changes in these phenomena including their amplitude. The Bay of Fundy is known for having the highest example of these phenomena. For the point, name these phenomena, describing the rise and fall of Earth's sea levels, influenced by the gravitational forces of the Sun and Moon.

ANSWER: **Tides**

(25) In one speech, this politician stated, "I am loath to close. We are not enemies, but friends." This man insisted in one speech on "malice towards none" and "charity for all." Following a two-hour oration by Edward Everett, this deliverer of the Cooper Union speech noted that the U.S. was "conceived in liberty" "four score and seven years ago." For the point, name this president who gave the Gettysburg Address.

ANSWER: Abraham **Lincoln**

Extra Questions

(1) This man names a set of seven Jewish laws that can be observed by righteous Gentiles. In Mormon theology, this man is the human form of the angel Gabriel. After planting a vineyard and getting drunk, this man was observed in the nude by his sons Shem, Japheth, and Ham. In the book of Genesis, this man received the rainbow as a divine sign from God. For the point, name this Biblical patriarch who built an ark to survive a global flood.

ANSWER: **Noah**

(2) One example of this literary form contains John Donne's phrase "No Man is an Island." *Songs of Innocence* and *Songs of Experience* by William Blake are both collections of works in this literary form. Robert Frost and William Wordsworth both wrote in, for the point, what literary genre that includes pieces like Edgar Allan Poe's "The Raven"?

ANSWER: **Poem** (accept **Poetry**; accept **Poet**; accept **Devotion** or **Meditation** before "Innocence" is mentioned)