

UNITED STATES ACADEMIC BEE - SAMPLE PACKET – 30 QUESTIONS

Updated September 2017

1. The Wiley Post-Will Rogers Memorial Airport is on this state's coast of the Chukchi Sea. Controversy arose over oil drilling in this state's Prudhoe Bay, and this state's Prince William Sound was the sight of the Exxon Valdez oil spill. Its highest point was officially renamed Denali in 2015, and its population density is by far the lowest of any U.S. state. For the point, name this largest and northernmost U.S. State with capital Juneau.

ANSWER: <u>Alaska</u>

2. Proton-pump inhibitors are used to reduce secretions from this organ's parietal cells. This organ converts the bolus into chyme [kime], which is then passed through the pyloric sphincter into the duodenum. An abundance of gastric acid can cause ulcers, or breaks in this organ's lining. Ruminant mammals have a four-chambered version of this organ. For the point, name this digestive organ between the esophagus and intestines.

ANSWER: stomach

3. This ruler oversaw the construction of Moscow Print Yard and St. Basil's Cathedral. After renouncing his abdication, he implemented a system of repression enforced by secret police called the Oprichniki, who later carried out the Massacre of Novgorod. He was succeeded by his intellectually disabled younger son Feodor after he murdered his heir apparent. For the point, name this Russian tsar whose epithet reflects his great cruelty.

ANSWER: Ivan the Terrible (accept Ivan IV Vasilyevich; prompt on Ivan)

4. Masters of this musical genre included pianists Earl Hines and Art Tatum. This genre, which makes heavy use of the pentatonic scale, "fused" in the 1960's with rock and R&B after going through a non-danceable form called bebop. John Coltrane and Miles Davis played, for the point, what syncopated, improvisational musical form popular in New Orleans, often played in bands featuring trumpets and saxophones?

ANSWER: jazz

5. At age 86, after struggling with sunlight, this poet discarded his original poem for President-elect Kennedy and recited "The Gift Outright" instead. He described woods that are "lovely, dark and deep" in a poem that ends repeating "and miles to go before I sleep," and noted that, of two roads that "diverged in a yellow wood," he "took the one less traveled by." For the point, name this American poet of "Stopping By Woods on a Snowy Evening" and "The Road Not Taken."

ANSWER: Robert Frost

6. This man answered Frederick II's question about arithmetic progressions between squares. He popularized the use of Arabic numerals in his Liber Abaci, which also described breeding rabbits to generate what is now considered a Lucas **[loo-KAH]** sequence. The golden ratio approximates the ratio between terms in a sequence named for this man. For the point, name this Italian mathematician whose namesake sequence begins 1, 1, 2, 3, 5.

ANSWER: Leonardo Fibonacci

7. Joseph Freeman joined this religion's Melchizedek priesthood in 1978 as it first began admitting African-American men into its clergy. The founder of this religion translated its holy text from a set of golden plates whose location was revealed to him by the angel Moroni. That founder's assassination in Carthage, Illinois led to its members embarking on a migration led by Brigham Young. For the point, name this Christian denomination founded by Joseph Smith.

ANSWER: Mormon ism [or the Church of Jesus Christ of Latter-Day Saints or LDS Church]

8. This concept is the difference in electric potential energy between two points. Current will naturally flow from higher values of this quantity to lower values. Current is proportional to this quantity under constant resistance according to Ohm's law. This electrical quantity is provided by batteries to create currents in electrical circuits. For the point, name this quantity, named for the Italian inventor of the chemical battery.

ANSWER: voltage (or emf or electromotive force)

9. This artist painted two frogs below a picture of a courtesan inspired by Keisai Eisen. *The Red Vineyard* is believed to be the only painting this artist sold in his lifetime. This artist's living quarters with Paul Gaugain in Arles are depicted in *The Yellow House*, and this artist of *Self Portrait with Bandaged Ear* depicted a swirling sky outside his asylum room in his most famous work. For the point, name this Dutch artist who painted *Sunflowers* and *The Starry Night*. ANSWER: Vincent Van Gogh

10. In this novel, ice skating at Rockefeller Center with Sally Hayes goes badly for the main character, who had fought Stradlater over his poor treatment of Jane Gallagher. The protagonist of this novel visits New York City, wondering where the ducks go in the wintertime, after he is expelled from Pencey Prep. For the point, name this often-banned novel about phony-hating Holden Caulfield written by J.D. Salinger.

ANSWER: The Catcher in the Rye

11. This case resulted from the Comité des Citoyens' [koh-mit-TAY duh sit-oh-YAHN] opposition to the Separate Car Act, and its result was defended in a 1952 memo by future Chief Justice William Rehnquist. The law in question in this case was equated to a "badge of servitude" in the lone dissent of John Marshall Harlan. For the point, name this 1896 Supreme Court case that upheld the "separate but equal" doctrine, allowing segregation until it was overturned by *Brown v. Board of Education*. ANSWER: Homer A. <u>Plessy v.</u> John H. <u>Ferguson</u> (accept in either order; prompt if one is given)

12. In August 2015, this country's richest man, Aliko Dangole, agreed on a \$4.3 billion deal to build new cement factories. Its April 2014 recalculation of its GDP highlighted its banking and other services in addition to its role as Africa's largest oil producer, allowing it to pass South Africa as Africa's largest economy. For the point, name this country which overtook South Africa for the largest economy in Africa with capital Abuja and largest city Lagos.

ANSWER: Nigeria

13. In this book, the "red creeper" weed swarms the countryside. The antagonists of this work create "tripods" armed with Heat Rays and chemical weapons, but are defeated by their lack of immunity to Earth's bacteria. For the point, name this 1897 science fiction novel by H.G. Wells, adapted into a 1938 Orson Welles-narrated radio broadcast that legendarily caused a panic that Martians were invading Earth.

ANSWER: The *War of the Worlds*

14. This body's Peary crater is near enough to its north pole that the mountains on its edge lie in permanent sunlight. This tidally locked body features numerous basalt plains called *mare* [MAH-ray], and the leading theory of its formation is of a "giant impact" some 4 billion years ago. The Sea of Tranquility is located on the light side of, for the point, what only natural satellite of Earth visited by the Apollo space missions?

ANSWER: Earth's Moon (or Luna)

15. In this novel, the wine-loving Grantaire awakens in time to support his friend Enjolras, who is about to be executed after the failed 1832 June Rebellion. Marius Pontmercy is rescued from the barricade by this novel's protagonist, who raises the ward Cosette while hiding in a convent from Javert [**zha-VAIR**]. For the point, name this long 1862 Victor Hugo historical novel about the redemption of the protagonist Jean Valjean [**Zhahn val-ZHAHN**] and the struggle of the wretched poor of Paris. ANSWER: Les Miserables

16. This term from government originally referred to men such as William Walker who organized privately-funded military expeditions in Latin America. Rand Paul has performed this action at least twice, opposing John Brennan's appointment as CIA director and the renewal of the Patriot Act. This procedure can't be done in the House of Representatives, but can be done in the Senate until cloture is called. Strom Thurmond's 24 hours and 18 minutes remains the record for, for the point, what parliamentary procedure in which a speaker delays a vote by speaking as long as possible? ANSWER: **filibuster**

17. In this war, swept-wing fighter jets like the F-86 Sabre dueled in MiG Alley. American forces broke out of the Chosin Reservoir in this war, where Matthew Ridgway replaced the man who ordered the Incheon landing, allowing one side to break out of the Pusan Perimeter. Douglas MacArthur led UN forces in, for the point, what 1950s war between countries led by Syngman Rhee and Kim Il-Sung on an East Asian peninsula?

ANSWER: Korean War

18. A quadrilateral's opposite angles will add up to 180 degrees if and only if it can be inscribed in one of these shapes. These shapes have zero eccentricity, and can be considered ellipses with coinciding foci. For a given perimeter, this shape creates the maximum area. For the point, name this two-dimensional shape, defined by its center and radius, whose area is equal to its radius squared times pi. ANSWER: circle

19. Glenn Gould made two famous recordings of one work by this composer, which was made to cure the insomnia of Count Kaiserling. This composer allegedly walked over 200 miles to meet the organist Dietrich Buxtehude [**DEE-trick BUX-tuh-hoo-duh**]. Felix Mendelssohn revived interest in this composer's work by conducting the *St. Matthew Passion*. Horror movies often use the opening to his *Toccata and Fugue in D Minor*. For the point, name this Baroque composer of the *Goldberg Variations*, one of the three B's with Brahms and Beethoven. ANSWER: Johann Sebastian Bach [prompt on "Bach"]

20. This element most commonly occurs as a double-bonded diatomic element, though it can also form a highly-reactive triatomic allotrope called ozone. Combustion is the burning of a hydrocarbon in an environment of this element, which also forms rust by combining with iron. For the point, name this chemical element, the second most abundant gas in Earth's atmosphere behind nitrogen, whose chemical symbol is O.

ANSWER: oxygen

21. In this city, the murder of Edmund Godfrey helped give credence to Titus Oates' invented claims. The king fled after attempting to arrest John Pym and four others in this city. Samuel Pepys' [**PEEPS**] diary records this city's last bubonic plague pandemic, as well as the 1666 Great Fire that devastated this city. Sir Christopher Wren rebuilt St. Paul's Cathedral in, for the point, what capital city of the United Kingdom?

ANSWER: London

22. In Act One, this character tells his friend "There are more things in heaven and Earth [...] than are dreamt of in your philosophy." His first line is the biting aside "A little more than kin, and less than kind," a reference to his stepfather, King Claudius, who had killed this man's father by pouring poison in his ear. For the point, name this Shakespearean Prince of Denmark, whose most famous soliloquy begins "To be or not to be?"

ANSWER: Hamlet

23. This country's port of Fortaleza was discovered by Spain's Vincente Pinzon, though the Treaty of Tordesillas [tor-duh-SEE-yus] prevented him from starting a colony there. The Parana River begins in this country and flows through the Itaipu Dam on this country's border with Paraguay. Its northwest is dominated by rainforest, and its north features the 200-mile wide mouth of the Amazon River. Sao Paulo and Rio de Janeiro are the largest cities in, for the point, what largest country in South America? ANSWER: **Brazil**

24. The deletion of part of one of these structures leads to cri du chat. These structures are described and counted in karyotyping, which can visually display the cause of Down's syndrome, an extra copy of the 21st of these in humans. These structures are copied and separated into two separate nuclei during mitosis. For the point, name these structures that contain the DNA of living organisms, of which humans have 23 pairs.

ANSWER: chromosome

25. This man led a victorious siege of Alesia where he captured Vercingetorix. He conquered most of modern-day France in the Gallic Wars alongside his Tenth Legion. He was part of the First Triumvirate along with Crassus and a man who he defeated after crossing the Rubicon, Pompey the Great. For the point, name this Roman dictator who was assassinated on the Ides of March by Cassius and Brutus. ANSWER: Gaius Julius <u>Caesar</u>

26. These events begin with the descent of a rear flank downdraft. Predicting these events often requires seeing a hook echo, indicating rain wrapping around a supercell, on Doppler radar. Waterspouts are examples of these events that take place over water. The enhanced Fujita scale measures the intensity of, for the point, what cyclonic weather phenomena that often begin as funnel clouds in thunderstorms? ANSWER: **tornado**

27. This character forces his assistant to lash himself thousands of times, supposedly to break the curse on his love, Dulcinea. This "Man of La Mancha" fights the Knight of the White Moon and quests with Sancho Panza to fight giants, which are really windmills. Chivalry novels warp the mind of, for the point, what title character of a Miguel de Cervantes novel, a man who believes himself to be a knight? ANSWER: **Don Quixote**

28. This figure promised Artemis that he would return the swift Ceryneian Hind. In another tale, he re-routed the Alpheus and Peneus rivers to wash away the dung of King Augeas' immortal cattle. The Oracle of Delphi instructed this man to serve Eurystheus [**yur-ISS-thee-us**], who ordered him to steal Diomedes' flesh-eating horses, the golden apples of the Hesperides [**hess-PAIR-uh-deez**], and to slay the Nemean lion in penance for killing his own family. For the point, name this Greek mythical hero who completed twelve legendary labors.

ANSWER: <u>Heracles</u> (or <u>Hercules</u>)

29. One food traditionally served during this festival is sufganiyah, a jelly doughnut topped with powdered sugar. This festival, which begins on the 25th of Kislev, commemorates the Maccabean revolt and the rededication of the Second Temple, during which a one-day store of sacred oil lasted for eight days. Dreidels are spun during the celebration of, for the point, what Jewish festival of lights, in which a menorah is lit?

ANSWER: <u>Hanukkah</u>

30. This man wrote "The light has gone out of my life" after the deaths of his mother and first wife took place in close succession. During a late Presidential campaign, he began one speech by noting "I have just been shot," and claimed that "it takes more than one bullet to kill a Bull Moose." "Speak softly and carry a big stick" was a motto of, for the point, what second vice president of William McKinley, who was immortalized with Washington, Jefferson, and Lincoln on Mount Rushmore? ANSWER: Theodore **Roosevelt** (prompt on Roosevelt)