REINSTEIN QUIZBOWL SAMPLE ROUND

1. Science: Life Science
Though the nucleus is the location of most animal DNA, some DNA is in this other organelle. In eukaryotes [yoo-KAR-ee-oats], the matrix of this cell organelle is where the citric acid cycle takes place. That creates ATP, which makes this organelle a source of energy. Name this organelle nicknamed the powerhouse of the cell.

ANSWER: **mitochondria** or **mitochondrion**

2. Social Studies: History
This U.S. President authorized the Red River Expedition, which explored what is now the American southwest, and the Pike Expedition. He also authorized the Corps [kor] of Discovery Expedition led by Lewis and Clark. Those expeditions took place after this President made the Louisiana Purchase. Name this 3rd U.S. President.

ANSWER: Thomas **Jefferson**

3. Math: Algebra (30 Seconds)
Solve for x: Two hundred fifty-six raised to the x power equals sixteen

ANSWER: **1/2** or 0**.5**

4. Miscellaneous: Movies
One character in this movie says Americans are, "Always overdressing for the wrong occasions." This was the first movie to feature the character Marion Ravenwood, who was played by Karen Allen. The main character gets a Biblical object after it is dug up by the Nazis in Egypt. Name this first movie to feature Indiana Jones.

ANSWER: ***Raiders of the Lost Ark***

5. Language Arts: Literature
This author wrote about a character who has a pet turtle named Dribble. That character, Peter Warren Hatcher, has a younger brother who is the subject of several books by this author. That brother is nicknamed Fudge. Name this author of *Tales of a Fourth Grade Nothing* who also wrote *Are You There God? It's Me, Margaret*.

ANSWER: Judy **Blume** or Judith **Sussman**

6. Fine Arts: Art
One of these animals is in Donatello's sculpture *Gattamelata*. Wassily Kandinsky painted a white one of these animals in *The Blue Rider*. A giant wooden one of these animals was used by the Greeks to win the Trojan War. Name these animals that appear in equestrian statues.

ANSWER: **horse**s

7. Science: Physical Science
This is the element that is neither calcium nor carbon in calcium carbonate. This element combines with chlorine to form chlorates and with nitrogen to form nitrates. A form of this element that absorbs ultraviolet light in the stratosphere is ozone. Name this element that combines with hydrogen to form water.

ANSWER: **oxygen** [prompt on **O**]

8. Social Studies: Geography
One offshoot of this river is the Hooghly [HOOG-lee] River, which goes through the town of Plassey. This is the major river through the city of Patna. Many people who live along this river believe that it can bring moksha, which is spiritual liberation. In Varanasi, it is common to put dead people's ashes in this river. Name this river in India.

ANSWER: **Ganges** River or **Ganga**

9. Math: Geometry
The sides and angles of one of these shapes are related by the law of sines. If its side lengths are known, the area of one of these shapes can be found using Hero's formula. If one of these shapes has a right angle, its sides are related by the Pythagorean Theorem. Name these shapes with three sides.

ANSWER: **triangle**s

10. Language Arts: Literature
This poet wrote the line "Then leaf subsides to leaf" in his poem "Nothing Gold Can Stay". Another poem by this writer opens with the line, "Whose woods these are I think I know." That poem ends with a repetition of the line, "And miles to go before I sleep." Name this poet who wrote "Stopping by Woods on a Snowy Evening".

ANSWER: Robert **Frost**

11. Science: Health
This is the most common human disease caused by morbillivirus [MOR-bi-luh-vie-rus]. An early symptom of this disease is Koplik's spots, and most patients get a rash of flat red spots. There was an outbreak of this disease in 2019 starting in Washington and Oregon. Name this disease whose vaccine is combined with the vaccines for mumps and rubella.

ANSWER: **measles** [accept **rubeola**]

12. Fine Arts: Music
This is the key signature of Franz Schubert's "Great" and "Little" symphonies, and this is the main key signature of Wolfgang Mozart's *Jupiter* Symphony. The minor key relative to this major key is A minor. Name this major key signature in which the piano uses only white keys because there are no sharps or flats.

ANSWER: **C** Major

13. Social Studies: History
This leader had Batis [BA-tis] killed after this leader's successful Siege of Gaza. Soon after that, this leader was successful at Gaugamela [gow-guh-MEL-uh], defeating Darius the Third. This leader took over the Hellenic League started by his father Philip the Second. Name this 4th century BC leader from Macedon who controlled a huge empire.

ANSWER: **Alexander the Great** or **Alexander III** [prompt on **Alexander**]

14. Math: General Math (30 Seconds)
Convert the fraction $\frac{7}{8}$ into a decimal.

ANSWER: 0**.875**

15. Language Arts: Literature
The two questions asked in this poem are "Was there a man dismayed?" and "When can their glory fade?" This poem is about six hundred soldiers who fought at the Battle of Balaclava during the Crimean War. Name this poem about a tragic attack that was written by Lord Tennyson.

ANSWER: "The **Charge of the Light Brigade**"

16. Social Studies: Civics
This Constitutional Amendment was the subject of the Supreme Court Case *Lemon v. Kurtzman*, which was about public funding of private schools. That case focused on this amendment's Establishment Clause, which prevents Congress from being involved with religion. Name this amendment that protects the press and free speech.

ANSWER: **1**st Amendment

17. Science: Physical Science
This quantity is multiplied by an object's velocity to calculate momentum. This quantity equals the net force on an object divided by its acceleration. When the theory of relativity was developed, the law of the conservation of energy was combined with the conservation of this quantity. Name this quantity that can be measured in grams.

ANSWER: **mass** [prompt on **m**]

18. Language Arts: Literature
A poem by this writer ends by telling the title character, "You're a better man than I am." That poem is "Gunga Din". This author also wrote about a pet who protects a family from the cobra Nagaina [nah-gah-EE-nuh]. That pet is the mongoose Rikki-Tikki-Tavi. Name this author who wrote about Mowgli in *The Jungle Book*.

ANSWER: Rudyard **Kipling**

19. Miscellaneous: Popular Music
This band's first album *Songs About Jane* featured the songs "Harder to Breathe" and "She Will Be Loved". Appearing with Big Boi and Travis Scott, this band headlined the Super Bowl Fifty-Three halftime show in 2019. Name this band featuring Adam Levine whose songs include "Sugar" and "Girls Like You".

ANSWER: **Maroon 5**

20. Science: Life Science
This part of the body is where the ulnar collateral ligament is located. That ligament is between the ulna and the humerus. There are overuse injuries to this body part named for golf and tennis because those sports can place stress on it. Name this joint located between the upper arm and fore arm.

ANSWER: **elbow** [prompt on **arm**]

21. Math: Geometry (30 Seconds)
Units are not required. If the area of a square is 16, find the area of a circle that is inscribed inside of it.

ANSWER: **4π**

22. Social Studies: History
This person gave a speech ending with the words "I am prepared to die" during the Rivonia Trial. This leader was often referred to by his clan name Madiba [muh-DEE-buh]. This person shared a Nobel Peace Prize with Frederik Willem de Klerk [klark] after they ended apartheid. Name this person who in 1994 became the President of South Africa.

ANSWER: Nelson **Mandela**

23. Math: Algebra
The derivative of a function equals this quantity for a tangent line to the function. The tangent of the angle between a line and the *x*-axis equals this quantity for the line. If this quantity is equal for two lines on a graph, then the lines are parallel. Name this quantity equal to the *m* in the equation *y=mx+b*.

ANSWER: **slope**

24. Language Arts: Literature
One writer from this country wrote a novel in which the title instrument started out as a birthday gift to three-year-old Oskar Matzerath. Another writer from this country wrote a novel consisting largely of letters to Wilhelm titled *The Sorrows of Young Werther*. Name this country home to Günter [GOON-tur] Grass and Johann [YO-hahn] Wolfgang von Goethe [GUR-tuh].

ANSWER: **Germany** or **West Germany** or **Deutschland**

EXTRA Social Studies: Geography
This country's tallest mountain is Pico de Orizaba, which is on the border between its states of Puebla and Veracruz. Veracruz is on this country's east coast, which also includes Yucatan Peninsula. Name this country whose northern states of Sonora and Baja California border the United States.

ANSWER: **Mexico** or **United Mexican States** or **Estados Unidos Mexicanos**

Bonuses

1. Language Arts: Literature
Name these African American writers.
A. This author of *The Bluest Eye* won a Nobel Prize shortly after writing *Beloved*.
B. This writer who delivered a poem at Bill Clinton's inauguration wrote the autobiography *I Know Why the Caged Bird Sings*.
C. This person wrote the memoir *Black Boy* and the novel *Native Son*.
D. This person wrote a saga about generations of a family starting with Kunta Kinte [KOON-tuh KIN-tay] and ending with himself.

ANSWERS:
A. Toni **Morrison** or Chloe **Wofford**
B. Maya **Angelou**
C. Richard **Wright**
D. Alex **Haley**

2. Math: Algebra
Consider the graph of *y* equals *x* squared.
A. What is the name of the shape of the graph generated by the equation?
B. The graph contains all of the points that are the same distance between the point $(0,\frac{1}{4})$ and the line $y = -\frac{1}{4}$. The line is called a directrix. What is the point called?
C. Find the point in the first quadrant where the graph crosses the line *y*=4*x*+12. Only give the point in the first quadrant, and give the *x*- and *y*-coordinates.
D. Find the *x*-coordinate for the point in the first quadrant which has a *y*-coordinate of 50. Give your answer in simple radical form.

ANSWERS:
A. **parabola**
B. **focus**
C. (**6,36**) or ***x*=6, *y*=36**
D. *x*=$\underline{\mathbf{5\sqrt{2}}}$

3. Social Studies: Geography
The longest river in South America is the 2nd longest river in the world.
A. Name the river.
B. Most of the river is in this largest country in South America.
C. Leticia [luh-TEESH-yuh], which is a city at the southern end of this country, borders the river.
D. This person who explored the river developed the theory of evolution independently of Charles Darwin and discussed the theories in letters with Darwin.

ANSWERS:
A. **Amazon** River
B. **Brazil**
C. **Colombia**
D. Alfred Russel **Wallace**

4. Science: Earth Science
Answer these questions about the rock marble.
A. Because marble usually started out as another type of rock, which of the three major types of rock is it?
B. What color is pure marble?
C. Marble typically starts out as what rock? This rock was used to cover the Great Pyramid of Giza.
D. Because marble is made of calcite, it typically rates as what number on Mohs scale of hardness? It is sometimes a little higher due to impurities.

ANSWERS:
A. **metamorphic** rock
B. **white**
C. **limestone**
D. **3**

5. Miscellaneous: Sports
Identify these locations of sports team moves:
A. In 2016, the St. Louis Rams of the NFL moved to this city. They were followed a year later by the San Diego Chargers.
B. In 2005, the Expos of MLB left this city and became the Washington Nationals.
C. In 1979, the New Orleans Jazz of the NBA moved to this state.
D. The NHL team in this city became the Phoenix Coyotes in 1996. In 2011, the Atlanta Thrashers moved to this city and took the name of the franchise that had left.

ANSWERS:
A. **L**os **A**ngeles, California
B. **Montreal**, Quebec, Canada
C. **Utah**
D. **Winnipeg**, Manitoba, Canada or **Winnipeg Jets**

6. Math: Computers
Objects connected to a network are given an IP address.
A. What does IP stand for?
B. IPv4 used four numbers separated by periods. IPv6 uses eight numbers separated by what punctuation mark?
C. IPv6 addresses are expressed using hexadecimal, which uses what number as a base?
D. One digit in hexadecimal can be expressed using four of what unit of information? Your answer should be a three-letter word.

ANSWERS:
A. **Internet Protocol**
B. **colon**s
C. **16**
D. **bit**

7. Social Studies: History
Name these leaders of the Soviet Union:
A. This first leader of the Soviet Union suffered several strokes before his death in 1924 at the age of 53.
B. This person led the Soviet Union for thirty years, including during World War Two.
C. This person was the Chairman of the Council of People's Commissars during the 1930s. People from Finland sarcastically named a weapon after this person.
D. This person briefly led the Soviet Union during the 1950s. After losing a power struggle, he attempted a coup [koo] against Nikita Khrushchev.

ANSWERS:
A. Vladimir **Lenin** or **Ulyanov**
B. Joseph **Stalin** or **Jughashvili**
C. Vyacheslav **Molotov**
D. Georgy **Malenkov**

8. Science: Life Science
The classification of living things is often called taxonomy.
A. Name the 18ᵗʰ century Swedish scientist known as the "father of modern taxonomy."
B. Name the 20ᵗʰ century University of Illinois professor who developed the three-domain system.
C. Two of the domains in the three-domain system are Archaea [ar-KAY-uh] and Eucarya [yoo-KAR-ee-uh]. Name the other one.
D. This level is the most specific level of classification, often referring to animals that are capable of breeding with each other.

ANSWERS:
A. Carl **Linnaeus** or Carl von **Linne** or Carolus **Linnaeus** or Carolus a **Linne**
B. Carl **Woese**
C. **Bacteria**
D. **species**

9. Language Arts: Grammar
Identify these punctuation marks.
A. This punctuation mark is put at the end of an interrogative sentence.
B. This punctuation mark is put in the middle of a sentence between two independent clauses.
C. There are two types of this punctuation mark—the en and the em. The em is wider.
D. These punctuation marks are sometimes called curly brackets, squiggly brackets, or accolades.

ANSWERS:
A. **question mark**
B. **semicolon** [do not accept or prompt on "colon"]
C. **dash**
D. **brace**s

10. Miscellaneous: Television
Identify these television series that have been broadcast by Nickelodeon:
A. This show is about a company started by the 7th graders Babe and Kenzie, who work with the rapper Double G and his son Triple G.
B. In this animated series, Cosmo and Wanda help Timmy Turner.
C. In this new show, Stuart moves to Portland and spends time with his relatives Ivy and Leaf.
D. The animated series *All Grown Up!* was a spinoff of this earlier Nick show.

ANSWERS:
A. ***Game Shakers***
B. *The **Fairly Oddparents***
C. ***Cousins for Life***
D. ***Rugrats***

11. Fine Arts: Drama
Identify these settings of William Shakespeare plays.
A. This city is the setting of *Romeo and Juliet* and *The Taming of the Shrew*. Another play is named for two gentlemen from this city.
B. This country is the setting of *Hamlet*.
C. This location, which is one of four parts of the United Kingdom, is the setting of *Macbeth*.
D. Much of *A Midsummer Night's Dream* is set in this major city.

ANSWERS:
A. **Verona**, Italy
B. **Denmark**
C. **Scotland**
D. **Athens**, Greece

12. Math: General Math
Identify these statistics terms:
A. This quantity is the number which shows up most often in a list of numbers.
B. This quantity is the difference between the largest data value and the smallest data value.
C. This quantity is a measure of the association between two variables. When this quantity equals negative one it means that one variable goes up when the other variable goes down.
D. This quantity is a measure of the spread of the data. This quantity equals the standard deviation squared.

ANSWERS:
A. **mode**
B. **range**
C. **correlation** coefficient
D. **variance**

13. Science: Physical Science
The noble gases have also been known as Group 18, Group 8A, or Group Zero.
A. This element is the lightest noble gas. Its atomic number is two.
B. This element makes up about 1% of the Earth's atmosphere, which is much more abundant than the other noble gases.
C. This letter represents the outermost electron orbital of a noble gas. Orbitals represented by this letter contain six electrons.
D. Though noble gases generally do not react with other elements, some of them combine with this element which has the highest electronegativity.

ANSWERS:
A. **helium** [prompt on **He**]
B. **argon** [prompt on **Ar**]
C. *p* orbital
D. **fluorine** [prompt on **F**]

14. Language Arts: Vocabulary
Identify these terms named after people:
A. This outfit consisting of a skirt over trousers became very popular in the 19th century.
B. This type of tomb is named after a person who was buried at Halicarnassus.
C. This refusal to buy certain products is named after an Irish rent collector.
D. This skin-tight piece of clothing is named after a French acrobat.

ANSWERS:
A. **bloomer**s
B. **mausoleum**
C. **boycott**
D. **leotard**

15. Social Studies: Current Events
The Department of Justice under President Trump has been busy.
A. Name the former Senator who was Trump's Attorney General in 2017 and most of 2018.
B. Name the person who became Acting Attorney General for the rest of 2018 and early 2019.
C. In late 2018, Trump nominated this former Attorney General to become the next Attorney General.
D. In 2017, Assistant Attorney General Rod Rosenstein [ROE-zen-stine] appointed this person to serve as Special Counsel looking into Russian interference in the 2016 Election.

ANSWERS:
A. Jeff(erson) **Sessions**
B. Matt(hew) **Whitaker**
C. William "Bill" **Barr**
D. Robert "Bob" **Mueller**

16. Science: General Science
Answer these questions based on units of measure:
A. How many millimeters are in a meter?
B. How many inches are in a yard?
C. Rounded to the nearest whole number, how many centimeters are in an inch?
D. Rounded to the nearest whole number, how many liters are in a gallon?

ANSWERS:
A. **1000 or 10^3**
B. **36**
C. **3**
D. **4**

17. Language Arts: Spelling
Spell the homophones:
A. Spell the word "sleigh" from the sentence, "The horses pulled the sleigh."
B. Spell the word "gait" from the sentence, "The horse walked with an unusual gait."
C. Spell the word "serial" from the sentence, "The person was a serial killer."
D. Spell the word "plait" from the sentence, "Men with long hair sometimes plait it."

ANSWERS:
A. **S L E I G H**
B. **G A I T**
C. **S E R I A L**
D. **P L A I T**

18. Fine Arts: Music
Answer these questions about the opera *The Barber of Seville*:
A. Even though Seville is in Spain, the opera is in this language commonly used for operas.
B. This person is the composer of *The Barber of Seville*.
C. This is the first name of the title character.
D. The title character sings in this voice range that is between bass and tenor.

ANSWERS:
A. **Italian**
B. Gioachino **Rossini**
C. **Figaro**
D. **baritone**

19. Math: Geometry
A rectangle has a length of four and a width of three. Units are not required.
A. Find the perimeter of the rectangle.
B. Find the length of a diagonal of the rectangle.
C. Find the area of the quadrilateral formed by connecting the midpoints of the rectangle sides.
D. Find the area of the triangle whose vertices are the midpoints of two adjacent sides of the rectangle and the opposite vertex of the rectangle.

ANSWERS:
A. **14** units
B. **5** units
C. **6** square units or units squared
D. **4.5** or **4 1/2** or **9/2** square units or units squared

20. Social Studies: Economics
Every month the U.S. government releases a jobs report which is officially called the Employment Situation Summary.
A. Name the quantity included in the report that equals one hundred times the number of people who do not have a job who are looking for work divided by the number of working people.
B. Name the cabinet-level department which publishes the report.
C. The report uses this term to describe people of working age who are no longer looking for work.
D. The report is based on two surveys, the establishment survey and this other survey.

ANSWERS:
A. **unemployment rate**
B. Department of **Labor** or **Labor** Department
C. **discouraged** workers
D. **household** survey