Illinois Coaches Association 1996 Tournament Round 5 TRIAD QUESTIONS

1.

TOSS-UP SCIENCE

On December 25, 1938 a trawler fishing off the coast of South Africa caught a very odd looking fish that was approximately five feet long. The strange thing about the fish was that its fins were attached to fleshy lobes rather than directly to the body. South African zoologist J. B. Smith recognized the fish as a member of a species believed to be extinct. For ten points name this species which was thought by scientist to have vanished from the Earth while the dinosaurs lived.

ANSWER——(Coelacanth Also accept: Crossopterygii)

1.

BONUS SCIENCE

Answer the following questions relating to leaves.

1. Most leaves consist of a broad flat blade, that is attached to the stem by a stalk known as what.

2. What name is given to the waxy substance which covers the outside of a leaf and helps prevent the escape of water.

3. What name is given to the specialized type of leaves which are adaptations to the desert environment which reduce water loss and are commonly found on cacti.

4. What name is given the specialized type of leaves which wrap around solid objects and help support climbing plants such as morning glories and cucumbers.

ANSWER——1.(Petiole)   2.(Cuticle)   3.(Spine)   4.(Tendril)

2.

TOSS-UP FINE ARTS

A great family of painters, together they created the Venetian School of painting. Jacopo, the father, trained both his sons. One of the sons, Gentile, was responsible for the work Procession of the Relic of the Cross in the Piazza of San Marco. Eclipsing both his brother and father was Giovanni, who was responsible for such works as The Madonna of the Meadow 1510 and St. Francis in Ecstasy 1485. For ten points give the last name of this great Italian Renaissance family.

ANSWER——(Bellini)

2.

BONUS FINE ARTS

Identify the following terms associated with art. They all begin with the letter C.

1. This a method for duplicating a work of sculpture by pouring a hardening substance such as plaster or molten metal into a mold.

2. From the Greek for 'beautiful writing', this a decorative or formal style of handwriting which is executed with a quill, reed pen or brush.

3. From the Italian word for 'set against', this term described the position of a figure in which the parts of the body are placed asymmetrically in opposition to each other around a central axis, and careful attention is paid to the distribution of the weight. It was first developed by the Greeks to represent the freedom of movement.

4. This is a sculpted female figure which used as an architectural support, usually as a column.

ANSWER——1.(Casting)   2.(Calligraphy)   3.(Contraposto)   4.(Caryatid)

3.

TOSS-UP SOCIAL STUDIES

Begun in 1881 under the direction of Jules Dingler by France's Universal Company of the Interocean Canal, it was abandoned after the loss of 10,000 workers due to malaria and 1.5 billion francs. For ten points name this canal which was eventually completed by the US Corps of Engineers in 1914.

ANSWER—(Panama Canal)

3.

BONUS SOCIAL STUDIES

Answer the following questions about the Third Servile War which started in 73 BC in Italy.

1. Name the escaped gladiator who was able to gather an army of slaves, which may have numbered up to 90,000, and who hoped to gain his freedom by marching out of northern Italy.

2. Name the empire in which this armed slave revolt occurred.

3. After the praetor Varinus was defeated at Lucania, this richest man of the empire and future member of the first triumvirate was given an army and defeated the rebellion at Rhegium and Lake Lucania.

4. Due to the Senate's fear of the rebels, this future member of the first triumvirate was recalled from Spain with his army and was given most of the credit for winning even though he landed in Italy after the man in part three had already suppressed the rebellion.

ANSWER—1.(Spartacus)   2.(Roman Empire)   3.(Marcus Crassus)
        4.(Gnaeus Pompeius Magnus or Pompey the Great)

4.

TOSS-UP LITERATURE

As the centaur Nessus helped his wife Deianira across the Evenus river, the centaur tried to violate her and this hero shot him. The centaur covered his shirt with blood and told her it was a love potion before he died, and she later gave it to her husband. It turned out to be a painful poison and he killed himself to end the pain. For ten points name this hero who thus died as a result of a woman, and not his twelve labors.

ANSWER—(Hercules or Heracles)

4.

BONUS LITERATURE

Answer the following questions about the legend of King Arthur.

1. In the thirteenth century the most famous replica of this piece of furniture, the 18-foot Winchester version, was made and in the 16th century it was painted with King Henry VIII's likeness used to represent Arthur.

2. Now known as the city of Glastonbury, the piece of land the town is on was once a swamp and in the middle was this island were Arthur was taken after he died.

3. Arthur was supposedly mortally wounded at Slaughter Bridge in Cornwall while fighting this man who was either his son or his nephew.

4. Upon Arthur's orders, the sword Excalibur was tossed into Dozmary Pool in Bodmin Moor by this knight.

ANSWER—1.(Round Table)   2.(Avalon)   3.(Modred or Mordred)
        4.(Sir Bedevere or Bedivere)

5.

TOSS-UP MISCELLANEOUS

Born Albino Luciani, he rose from parish priest to bishop of Vittorio Veneto to Patriarchate of Venice to Pope all while trying to end of pomp of the Catholic Church. The 263rd man to be made Pope, he became famous for his letters that he wrote to Dickens and Twain in which he discussed theology. For ten points name this man who reigned just 34 days in 1978.

ANSWER----(John Paul I)

5.

BONUS MISCELLANEOUS

Answer the following about various calendars systems that have been used through history.

1. Adopted in 1792 as a symbol of the 'liberty, equality and fraternity' of the new regime, this calendar with month names such as Thermidor, lasted 14 years. It currently would be the year 204 on this system.

2. In 1650 A.D., Archbishop James Ussher calculated that this event occurred in 4004 B.C. and he created the Christian Mundane calendar with this as the starting point. It would be 6,000 C.M.E with this calendar.

3. It is now known that our calendar has the wrong year 1 A.D. because Jesus was born during the reign of this Judean king who is known to have ruled from 20 B.C. to 4 B.C. on our current calendar.

ANSWER----1.(French Revolutionary Calendar)   2.(Creation of the world)   3.(Herod I)

6.

TOSS-UP MATH

What is the volume of a cube if it has a total surface area of 384 square meters?

ANSWER----(512 cubic meters)

6.

BONUS MATH

Complete the following statements by supplying the missing word or words.

1. Any two consecutive angles in a parallelogram are in this relationship.

2. The diagonals of a parallelogram do this to each other.

3. A quadrilateral with exactly one pair of parallel sides is called this.

4. Vertical angles are always this.

ANSWER----1.(Supplementary)   2.(Bisect)   3.(Trapezoid)   4.(Congruent or Equal)

7.

TOSS-UP SOCIAL STUDIES

Dr. Carl Weiss was the son-in-law of Judge Benjamin Pavy, one of this man's political enemies. So on September 10th, 1935, in the halls of the state capital, Weiss fired at point blank range at this Senator. For ten points name this man who died two days later, who was called the first American dictator by his enemies, famous for his "Share of the Wealth" program in Louisiana.

ANSWER----(Huey Long)

7.

BONUS SOCIAL STUDIES

Answer the following questions relating to the Revolutionary war.

1. What British general was forced to retreat from Boston with his troops in March of 1776.

2. At what site did George Washington's army attack the British on Christmas day in 1776.

3. In what battle, considered the turning point of the revolution, did Horatio Gates defeat Johnny Burgoyne in 1777.

4. At what famous battle did Washington's forces attack General Clinton's troops on June 28, 1778 in which Mary McCauley took her husband's place at a cannon after he fell in battle.

ANSWER----1.(General William Howe)   2.(Trenton)   3.(Saratoga)   4.(Monmouth)

8.

TOSS-UP SCIENCE

Theia Mons, Ishtar Terra, Maxwell Montes, Artemis, the Margaret Meade crater, Aphrodite Terra and Beta Regio. For ten points these are the most prominent geographic features on this planet, the second closest to the sun.

ANSWER----(Venus)

8.

BONUS SCIENCE

Answer the following questions about the Galileo probe.

1. The probe is currently in orbit around this gas giant which it will spend two years studying.

2. The probe made also made news in 1991 when it was discovered that the main one of this device used to transmit information back to earth would not open and the much slower back-up would have to be used.

3. In order to gain enough speed to reach its destination, the probe used the gravitational slingshot effect when it passed by this planet.

4. On its journey the probe passed by and studied Ida, Gaspra and Dactyl, which are examples of this type of object which is found by the thousands in the belt beyond Mars.

ANSWER----1.(Jupiter)   2.(Antenna)   3.(Venus or Earth)   4.(Asteroids)

9.

TOSS-UP LITERATURE

This author wrote an autobiography titled A Particular Treasure and a sequel titled A Kind of Magic. She was famous in the 1920s and 30s for her novels Cimmeron and The Girls. For ten points name this author famous for her work Giant.

ANSWER----(Edna Ferber)

9.

BONUS LITERATURE

Given a title, name the author.

1. Winesburg, Ohio.   2. The Drunken Boat.
3. Beyond Good and Evil.   4. The Charterhouse of Parma.

ANSWER----1.(Sherwood Anderson)   2.(Arthur Rimbaud)   3.(Friedrich Nietzsche)
                    4.(Stendhal)

10.

TOSS-UP MATH

In the arithmetic sequence 5, 9, 13, 17...etc., what is the value of the 21st term in the sequence?

ANSWER----(85)

10.

BONUS MATH

Give all the solutions to the following equations.

1. 6 times the quantity X plus 1 equals 14X plus 2.

2. X squared plus 5X minus 66 equals 0.

3. 5X squared plus 23X minus 10 equals 0.

4. X cubed minus 4X squared plus X plus 6 equals 0.

ANSWER----1.(1/2)   2.(6 & 11)   3.(2/5 & negative 5)   4.(2, 3, & negative 1)

Half-Time

11.

TOSS-UP SOCIAL STUDIES

The illegitimate son of Thomas Chapman, he crossed the Nefou desert with a small band and captured the Turkish fort of Aqaba. Pushing on to capture Damascus, he rose to the rank of Colonel before being sent home where he died in a motorcycle accident. For ten points name this man, who wrote about his experiences in Arabia in Seven Pillars of Wisdom.

ANSWER——(Thomas Edward **Lawrence** or **Lawrence of Arabia**)

11.

BONUS SOCIAL STUDIES

Identify the following military aircraft of World War Two.

1. Officially named the Junkers Ju 87 Sturzkampfflugzeug, this German dive bomber became famous in the Polish campaign where the screams from its sirens were known as the 'trumpets of Jericho.'

2. Produced by the Messerschmitt company, this single-seat aircraft was the most formidable and main fighter craft of the German air force through most of the war.

3. Along with the Hawker Hurricane, this was the main fighter of the Royal Air Force. Produced by the Vickers company, this single-seat craft had an all metal body and was the only British aircraft that could fight on equal terms with the German in part two.

4. Another of the fighters designed by Willy Messerschmitt, this aircraft known as the Stormbird was described by Allied pilots "as if angels were pushing" it. Name this first massed produced German jet fighter.

ANSWER——1.(**Stuka**)   2.(Bf **109**)   3.(Supermarine **Spitfire**)   4.(Me **262**)

12.

TOSS-UP LITERATURE

At his death he left the novels Septimus Felton and The Dolliver Romance unfinished. His last published work, Our Old Home, was a record of his literary pilgrimages. For ten points name this graduate of Bowdoin College famous for his novels Fanshawe and The House of the Seven Gables.

ANSWER——(Nathaniel **Hawthorne**)

12.

BONUS LITERATURE

Given a title, name the author.

1. History of the Standard Oil Company.   2. A Tree Grows in Brooklyn.
3. The Medium is the Massage.   4. A Pair of Blue Eyes.

ANSWER——1.(Ida **Tarbell**)   2.(Betty **Smith**)   3.(Marshall **McLuhan**)   4.(Thomas **Hardy**)

13.

TOSS-UP FINE ARTS

A London newspaper once sarcastically wondered why he was producing so many new songs after his death since Robert Schumann had found the C major Symphony in the composer's brother's house and Arthur Sullivan found his lost music to Rosamunde. For ten points name this composer whose Unfinished Symphony was also found almost thirty years after his death.

ANSWER——(Franz **Schubert**)

13.

BONUS FINE ARTS

Identify the Baroque composers of the following works.

1. The Art of Fugue.   2. Canon and Gigue for Strings in D major.
3. Music for the Royal Fireworks.   4. Dido and Aeneas.

ANSWER——1.(Johann Sebastin **Bach**)   2.(Johann **Pachelbel**)   3.(George Frideric **Handel**)
         4.(Henry **Purcell**)

14.

TOSS-UP SCIENCE

The first person to study this gas was Jan Helmont, but Joseph Black was the first to notice that it made up a small quantity of the air when he saw that it combined with lime to form calcium carbonate. For ten points name this fourth most common gas in the atmosphere which plants need to survive.

ANSWER----(**Carbon Dioxide** or CO_2)

14.

BONUS SCIENCE

Answer the following questions about surface chemistry.

1. This is the process of placing a substance between two objects which rub against each other to reduce friction.

2. Similar to adhesion, this process which results from intermolecular forces, is the tendency of two bodies of like composition to hold together.

3. Also known as the interfacial force, this is the force which acts on a surface, attempting to minimize the area of the surface.

4. This process is similar to absorption, except that in this process the adsorbate is retained on the surface of the object, rather than taken in throughout the bulk of the body.

ANSWER----1.(**Lubrication**)   2.(**Cohesion**)   3.(**Surface tension**)   4.(**Adsorption**)

15.

TOSS-UP MATH

What special name is given to the width of a parabola at the focus, which can be mathematically expressed as 4P where the parabola is expressed as X squared equals 4PY?

ANSWER----(**Latus rectum**)

15.

BONUS MATH

Give the exact values of the following in simplest form.

1. The sine of 120 degrees plus the cosine of 150 degrees.

2. The tangent of 240 degrees minus the tangent of negative 60 degrees.

3. The secant of 60 degrees plus the cosecant of 30 degrees.

4. The sine of 300 degrees plus the cosine of 210 degrees.

ANSWER----1.(**0**)   2.(**2 times the square root of 3**)   3.(**4**)   4.(**Negative the square root of 3**)

16.

TOSS-UP MISCELLANEOUS

Previous winners have included U-Conn in 1988, Minnesota in 1993 and Virginia Tech last year. Begun in 1938, this tournament used to crown the national champion but now it crowns the 65th best team in the nation. For ten points name this basketball tournament whose finals are played at Madison Square Garden.

ANSWER----(**NIT** or the **National Invitational Tournament**)

16.

BONUS MISCELLANEOUS

Given a popular album of 1995, name the group or artist that recorded it.

1. Now That I've Found You.   2. The Ghost of Tom Joad.

3. Mellon Collie and Infinite Sadness.   4. Design of a Decade.

ANSWER----1.(Alison **Krauss**)   2.(Bruce **Springstein**)   3.(**Smashing Pumpkins**)

4.(**Janet Jackson**)

17.

TOSS-UP SCIENCE

One famous legend about him goes that when he was offered a nomination for the Legion of Honor, he said he would rather have a new laboratory. One story that is known for a fact is that when he was returning home from a meeting in 1906 he was struck by a horse-drawn wagon and killed. For ten points name this French scientist most famous for co-discovering piezoelectricity with his brother and radium with his wife Marie.

ANSWER—(Pierre Curie)

17.

BONUS SCIENCE

Identify the following ores from a description.

1. Recognizable by the triangular pits on its surface, this lead ore was named for the city in northwestern Illinois where it was prominently mined.

2. With formula Fe_2O_3, this rhombohedral crystal is generally white even though it is named from the Greek word for blood.

3. Also known as uraninite, this uranium ore was used by the Curies in their experiments.

4. The chief ore of aluminum, this hydrated oxide of aluminum is named after the Beaux region of France.

ANSWER—1.(Galena)   2.(Hematite)   3.(Pitchblende)   4.(Bauxite)

18.

TOSS-UP SOCIAL STUDIES

Designed by Le Vau, it is located in the woodlands of Ile de France on the site of one of Louis XIII's hunting lodges. Taking ten years and 36,000 men to build, this place is famed for its gardens, fountains and the hall of mirrors. For ten points name this royal palace of King Louis XIV of France.

ANSWER—(Versailles)

18.

BONUS SOCIAL STUDIES

Name any five of the six largest cities in Asia by population, any order is acceptable.

ANSWER—(Bombay, Calcutta, Soeul, Delhi, Jakarta and Tokyo)

19.

TOSS-UP LITERATURE

His later books such as The Paper Men and Pincher Martin never rivaled the success of his first book. Known for his ironic twists and Christian allusions, this author became famous for his story about Piggy, Simon, and Jack who are stranded on an island. For ten points name this author of Lord of the Flies.

ANSWER—(William Golding)

19.

BONUS LITERATURE

Given a title, name the author.

1. Waiting for Godot.   2. The Road Less Traveled.
3. A Separate Peace.   4. The Painted Bird.

ANSWER—1.(Samuel Beckett)   2.(M. Scott Peck)   3.(John Knowles)   4.(Jerry Kosinski)

20.

TOSS-UP MATH

What is the hexadecimal equivalent of the decimal number 93?

ANSWER—(5D)

20.

BONUS MATH
Convert the following fractions to decimals to the nearest hundredth.
1. 5/8.   2. 5/12.   3. 7/6.   4. 7/17.
ANSWER—1.(.63)   2.(.42)   3.(1.17)   4.(.41)

Replacement Questions

TOSS-UP SCIENCE
The great project of his life, a five-year journey through the Americas, was recorded in his two great works Narrative of Travels and Cosmos. On the journey he catalogued 60,000 species of plants, climbed Mt. Chimborazo and collected more than 35 trunks of specimens. For ten points name this German who is best known for studying the cold current off the coast of Peru which is now named after him.
ANSWER—(Alexander von Humboldt)

BONUS SCIENCE
Answer the following questions about the first manned moon landing.
1. Name the second man to set foot on the moon.
2. On what lunar feature did the landing occur.
3. What were the first four words that were broadcasted after the touchdown.
4. Name the astronaut who was forced to stay in the command module in orbit around the moon.
ANSWER—1.(Buzz Aldrin)   2.(Sea of Tranquility or Mare Tranquilitus)
        3.(Houston, Tranquility base here, the Eagle has landed)   4.(Michael Collins)

TOSS-UP LITERATURE
He attended the University of London where he studied under Thomas Huxley before becoming a teacher. His writing went through several periods including a period of science fiction, a realistic period and a popular non-fiction period. Known for his fierce advocation of evolution and science, he is famous for the novels The First Man on the Moon and The New Machivelli. For ten points name this author of The Time Machine.
ANSWER—(H.G. Wells)

BONUS LITERATURE
Given a title, name the author.
1. Utopia.   2. The Biglow Papers.
3. White Jacket.   4. Demian.
ANSWER—1.(Sir Thomas More)   2.(James R. Lowell)   3.(Herman Melville)
        4.(Hermann Hesse)

TOSS-UP MATH
For a quick ten points what is 161 expressed as a roman numeral.
ANSWER—(CLXI)

BONUS MATH
Find the sum of the indicated number of terms of the following arithmetic or geometric progressions.
1. 3, 7, 11...etc., 10 terms.
2. 2, 6, 18....etc., 6 terms.
3. 1, ¾, 9/16...etc., 4 terms.
4. 3.15, 3.1, 3.05...etc., 11 terms.
ANSWER—1.(210)   2.(728)   3.(175/64)   4.(31.9)

TOSS-UP SOCIAL STUDIES
In the Middle Ages these were used as a precaution against fires, while in WWII they were used as a means of protecting against air raids and conserving natural resources. Originally it referred to the tolling of a bell at a fixed hour, but now it refers to a warning to minors to go indoors. For ten points identify this term.
ANSWER—(Curfew)

BONUS SOCIAL STUDIES

Name the explorer from a description.

1. He explored the southwest US looking for the seven cities of Cibola.

2 + 3. These two French men charted the Mississippi River in 1673.

4. He was the first European to discover New York Bay.

ANSWER——1.(Coronado)   2 + 3.(Marquette and Joliet)   4.(Giovanni Verazano)