## ABT OPEN 1995 Round 4

## Questions written and edited by TRIAD QUESTIONS

## 1.

## TOSS-UP MISCELLANEOUS

He holds the Major League record for most total bases, extra-base hits, RBIs and career times at bat. He appeared in 24 all-star games and earned the MVP award in 1957 when he lead the Braves to the World Series title. For ten points name this man elected to the Baseball Hall of Fame in 1982 who also holds the Major League record for most home runs in a career.
ANSWER---(Henry 'Hank' Aaron)
1.

BONUS MISCELLANEOUS
Name the only three movies that James Dean ever stared in. ANSWER---(Giant, East of Eden and Rebel Without a Cause)

## 2.

TOSS-UP LITERATURE
Truman Capote said of this work "This isn't writing, this is typing." Originally written as one paragraph on a 250 foot roll of paper, it tells the story of Dean Moriarity and Carlo Marx as they hitchhike across the country with Sal Paradise. For ten points name this famous classic of the Beat generation written by Jack Kerouac.
ANSWER--(On the Road)
2.

BONUS LITERATURE
There have been eight poet laureates of the US. Name any four of them.
ANSWER----(Robert Haas, Rita Dove, Mona Van Duyn, Joseph Brodsky, Mark Strand, Howard Nemerov, Richard Wilber and Robert Penn Warren)

## 3. TOSS-UP SOCIAL STUDIES

The Lausanne Conference canceled $90 \%$ of these which were called for in the Young Plan. The Young plan had reduced them to 8 billion payable over 58 and one half years. And the Dawes Plan had reduced the them from the original amount of 132 billion dollars. For ten points name these payments which Germany was supposed to make the allies after world War I but which were canceled after Hitler became Chancellor.
ANSWER---(Reparations)
3.

BONUS SOCIAL STUDIES
Answer the following questions about the Wright Brothers.

1. Before the Wright Brothers became interested in aviation, what did they do.
2. In what historic place did their first flight take place.
3. In what year did the first flight take place.
4. In what state did they work before they took of aviation?

ANSWER--1.(Manufactured bicycles) $\quad 2 .($ Kitty Hawk, N.C.) $\quad$ 3.(1903) $\quad$ 4.(Ohio)

## 4.

TOSS-UP SCIENCE
In his meticulous experiments he measured the amount of work added to an insulated container of water by a stirring rod and determined that a fixed amount of work was required to raise a unit mass of water one degree. For ten points name this Englishman who has the unit of energy in the SI system named after him for his work.
ANSWER---(James Joule)
4.

## BONUS SCIENCE

Answer the following questions about the science of using sound waves to create bursts of light from containers of liquids and gases.

1. By what name, combining the Latin words for sound and light, is this phenomenon known.
2. It is not known exactly how this occurs, but scientists believe that the sound heats up tiny bubble in the sample to high pressure and temperature so that they are in this fourth state of matter.
3. There are several theories as to what actually produces the light, one of them is that the conditions are ideal for welding hydrogen atoms together in this nuclear process, a boundless source of energy.
4. Another theory proposes that the sound waves collapse tiny bubbles in the medium, which generate supersonic motion and produce this type of compression wave often associated with airplanes breaking the sound barrier. The waves then concentrate in the center and release their energy as light.
ANSWER--1.(Sonoluminescence) 2.(Plasma) 3.(Fusion) 4.(Shock wave)

## 5. <br> TOSS-UP MATH

In Newton's second law of motion, force equals the mass times the acceleration. For ten points what type of mathematical relationship exists between the mass and the acceleration?

## ANSWER---(Inversely Proportional)

## 5. <br> BONUS MATH

Identify what shape the graph of each polar function gives.

1. R equals 6 times the cosine of theta.
2. R equals 6 plus 4 times the cosine of theta.
3. $R$ equals 1 minus the sine of theta.
4. $R$ squared equals 8 times the sine of theta.

ANSWER--1.(Circle) 2.(Limacon) 3.(Cardioid) 4.(Figure Eight)

## 6.

## TOSS-UP FINE ARTS

When Arturo Toscanini refused to conduct a 1935 performance of Wagner's Parsifal in protest of the Nazi treatment of Jewish musicians, this composer stepped in and conducted brilliantly. He remained a public figure in Germany until the allies destroyed the Munich musical hall and in great despair he went back to composing. For ten points name this composer of Elektra and Also Sprach Zarathustra.

## ANSWER---(Richard Strauss)

## 6. <br> BONUS FINE ARTS

Identify the nationality of the following famous conductors.
$\begin{array}{llll}\text { 1. Sir Georg Solti. } & \text { 2. Zubin Mehta [May-ta]. } & \text { 3. Arturo Toscanini. } \quad \text { 4. Serge Koussevitsky. } \\ \text { ANSWER--1.(British or Bulgarian) } & \text { 2.(Indian) } & \text { 3.(Italian) } & \text { 4.(Russian) }\end{array}$

## 7. <br> TOSS-UP LITERATURE

Compounded from the Greek ou and topos, meaning nowhere, this title is probably a pun on the Greek eutopos, meaning good place. Formerly known as Abraxa, it was conquered 1,700 years ago by King Utopos who established his capital at Amaurot. For ten points name this fictional island with an ideal government created by Sir Thomas More.
ANSWER----(Utopia)
7.

BONUS LITERATURE
Identify the following about the novel The Mayor of Casterbridge.

1. Name the author.
2. In what century was this novel written.
3. Name the sailor who buys Susan and her baby for five guineas when her husband becomes drunk and agrees to sell her.
4. Name one of the two mayors of Casterbridge in the novel,

## ANSWER---1.(Thomas Hardy) 2.(19th century) <br> 3. (Newson) <br> 4.(Michael Henchard or Donald Farfrae)

## 8.

TOSS-UP SCIENCE
There are only about 230 species of these organisms. They have changed very little in 200 million years. Their heads are triangular and their mouths are a horny toothless beak. For ten points name these organisms whose upper shell is called a carapace and the belly shell a plastron.
ANSWER---(Turtles)
8.

BONUS SCIENCE
Identify the following biological terms from a descriptions.

1. The bursting of cells due to internal pressure.
2. The shrinking of a cell due to a loss of water.
3. The process by which a cell passes a substance across its semi-permeable membrane using energy.
4. The process by which one-celled organisms take large particles of food through their cell membrane.

ANSWER---1.(Cytolysis or Lysis) 2.(Plasmolysis or Crenation) 3. (Active Transport)
4.(Phagocytosis)

## 9.

TOSS-UP SOCIAL STUDIES
Unhappy at the fact that they were not being reimbursed for the value of their slaves, state lawmakers refused to ratify the 13th Amendment and abolish slavery in this state until 1995. For ten points name this Magnolia state whose House and Senate took a symbolic vote in their capital of Jackson.

## ANSWER----(Mississippi)

9. 

BONUS SOCIAL STUDIES
Identify the following counties from a description.

1. The county in which Chicago is located.
2. As told in a Mark Twain story, this California county holds a Jumping Frog Jubilee each May.
3. Irvine, Laguna Beach and San Juan Capistrano can be found in this southern California county which recently went bankrupt.
4. Enclosing part of the Mojave desert, this is the largest county in California and the United States.

ANSWER---1.(Cook) 2.(Calaveras) 3.(Orange) 4.(San Bernardino)

## 10.

## TOSS-UP MATH

What are the coordinates of the solution of the equations 2 X plus 3 Y equals negative 17 and 3 X minus Y equals 2 ?
ANSWER----(Negative 1, Negative 5)

## 10.

BONUS MATH
What are the four solutions to the equation X to the fourth minus X cubed minus 16 X squared plus 16 X equals 0 ?
ANSWER---1, 2, 3 \& 4.(0, 1, 4, \& Negative 4)

## Half-Time

## 11.

TOSS-UP MATH
What special name is given to a non-empty set of ordered pairs of real numbers?
ANSWER---(Relation)
11.

BONUS MATH
Given the following binary numbers, convert them to decimal numbers.

| 1. 101011 | 2.1001 | 3.1101 | 4.1011101 |
| :--- | :---: | :---: | :---: | :---: |
| ANSWER---1.(43) | 2.(17) | 3.(29) | 4.(93) |

## 12.

## TOSS-UP SOCIAL STUDIES

Born Eric Thorvaldson sometime during the tenth century, he is the subject of several Icelandic sagas for his exploration and colonization of Greenland. For ten points name this Norwegian, the father of Leif Eriksson.
ANSWER----(Eric the Red)
12.

BONUS SOCIAL STUDIES
Answer the following questions about the history of Columbia and its drug cartels.

1. Controlling up to 80 percent of the cocaine trade, the Cali cartel was dealt a serious blow when this leader was captured by the army while hiding in his closet in June 1995.
2. Because Columbia forbids the extradition of its citizens, he was held in La Picota Prison in this city, the capital.
3. The most famous of the drug lords, this man was killed in a rooftop shoot-out in 1993.
4. The man in part three was head of the cartel in this second largest city in Columbia.
ANSWER----1.(Gilberto Rodriguez Orejeula) 2.(Bogata) 3.(Pablo Escobar)
5. Medillin [Med-a-yeen])

## 13.

## TOSS-UP SCIENCE

"Use of the product may be hazardous to your health. The product contains this chemical which has been determined to cause cancer in laboratory animals." So reads the warning label for products containing this chemical. For ten points name this artificial sweetener found in Sweet'N Low.
ANSWER---(Saccharin)

## 13. <br> BONUS SCIENCE

Answer the following questions about different types of sugars.

1. When several thousand units of glucose are hooked together in 1,4 beta bonds they yield this molecule which serves as the backbone of wood, leaves and grass.
2. When several thousand units of glucose are hooked together in non-branching chains with 1, 4 alpha bonds they yield this molecule which is found in potatoes and corn and is used by plants to store energy. 3. Very similar to the molecule in part two, it includes some branching chains, and is used as an energy storage molecule in animals.
3. When this disaccharide is hydrolyzed, it yields a 1 to 1 mixture of fructose and glucose known as invert sugar.
ANSWER---1.(Cellulose) 2.(Starch) 3.(Glycogen) 4.(Sucrose)
4. 

## TOSS-UP SOCIAL STUDIES

Britain's oldest colony is currently deciding whether after 375 years it wants to become independent or remain tied to Great Britain. Formerly known as the Somers Islands, it consists of St. George's, St. David's and Great islands with its capital at Hamilton. For ten points name this island group located in the Atlantic Ocean, 600 miles east of North Carolina.
ANSWER----(Bermuda)

## 14.

BONUS SOCIAL STUDIES
Name the four largest cities in France by population.
ANSWER----(Paris, Marseilles, Lyon and Toulouse)

## 15.

TOSS-UP MATH
What is the sum of the infinite geometric series $4,1,1 / 4,1 / 16 \ldots$. etc. ?
ANSWER---(5\&1/3 or 16/3)

## 15.

BONUS MATH
Given the function $f$ of $x$ equals three $X$ cubed plus six $X$ squared plus 19 , find each of the following.

1. F of 1 . 2. F of negative 2. 3. F of 7 . $\quad \mathrm{F}$ of negative 9.

ANSWER---1.(28) 2.(19) 3.(1342) 4.(Negative 1682)
16.

TOSS-UP SCIENCE
A fourth magnitude object, it was first studied telescopically by Simon Marius who believed it to be a nebula. Classified two hundred years later as M31 by Charles Messier, it was Heber Curtis' study of novas in this object that convinced most scientists that it was a galaxy. For ten points name this largest of our near neighbors.
ANSWER---(Andromeda)
16.

BONUS SCIENCE
Answer the following questions about the history of star maps.

1. One of the earliest known and the best of ancient history was made by this Greek astronomer of the second century BC who also first calculated the distance to the moon.
2. Three hundred years later the definitive European map for the next 1500 years was made by this Greek astronomer after whom the earth centered solar system theory was named.
3. The cause of updating star maps in history was often caused by the sudden appearance of this explosion of a massive star which caused scientists to wonder why the old maps they had were wrong.
ANSWER---1.(Hipparchus) 2.(Ptolemy or Claudius Ptolemaeus) 3.(Supernova)

## 17.

## TOSS-UP LITERATURE

His first work A Week on the Concord and Merrimack Rivers sold so poorly that he was unable to find a publisher for his second work for over five years. During those years he worked as a surveyor and in the family pencil business. Name this author, editor of "The Dial", whose second book Walden was a huge success.

## ANSWER-(Henry David Thoreau)

17. 

BONUS LITERATURE
Name the Three Musketeers in any order.
ANSWERS--(Athos, Porthos and Aramis)
18.

## TOSS-UP MISCELLANEOUS

After taking over NCR this telecommunications giant decided it could no longer operate effectively as one company so it decided to split itself into three companies in an effort to be more efficient. For ten points name this company with over $\$ 75$ billion in revenues known for its long distance service.

## ANSWER--(AT \& T)

## 18.

## BONUS MISCELLANEOUS

Given a year and an record title, identify who won the Grammy that year for best record.

1. 1989, Wind Beneath My Wings. 2. 1992, Tears in Heaven.
2. 1988, Don't Worry, Be Happy. 4. 1978, Just the Way You Are

ANSWER---1.(Bette Midler) 2.(Eric Clapton) 3.(Bobby McFerrin) 4.(Billy Joel)
19.

TOSS-UP LITERATURE
Guy Montag is a fireman who lights fires instead of putting them out in this science fiction work. Set in the future, Guy burns books which are against the law. One day after killing a woman he turns to Faber who is a supporter of books. The books ends as Guy's city is burned to the ground by firemen burning Guy's books. For ten points name this novel by Ray Bradbury.
ANSWER----(Fahrenheit 451)
19.

BONUS LITERATURE
Given a title name the author.

1. The Hunchback of Notre Dame. 2. The Iliad.
2. Heartbreak House.

ANSWER---1.(Victor Hugo) 2.(Homer) 3.(George Bernard Shaw) 4.(Henrik Iosen)

## 20.

## TOSS-UP FINE ARTS

Appointed court painter to Philip the Good, the Duke of Burgundy, he remained so until his death in 1441. For many years he was credited with the invention of oil painting, but now experts believe that this was in error. For ten points name this Flemish artist famous for such works as Ince Hall Madonna, Man in A Red Turban and The Ghent Altarpiece.
ANSWER----(Jan van Eyck)
20.

BONUS FINE ARTS
Identify the place in which each of the following famous paintings are located today.

1. The Birth of Venus.
2. A Sunday Afternoon on the Island of La Grande Jatte.

ANSWER--1.(Uffizi) 2.(National Gallery in London) 4. (Antwerp Cathedral)
2. The Hay Wain. 1821
4. The Descent from the Cross 1614. 3. (Art Institute of Chicago)

## Replacement Questions

## TOSS-UP LITERATURE

Her book The March of Folly was an historical examination of four situations mismanaged by governments. She also wrote A Distant Mirror which was an account of 141 h century France, but she is best known for her Pulizer Prize winning works Stilwell and the American Experience in China, 19111945 and The Guns of August. For ten points name this author.

## ANSWER--(Barbara Tuchman)

## BONUS LITERATURE

Given a tille name the author.

1. Swiss Family Robinson.
2. The Praise of Folly.

ANSWER---1.(Johann Wyss)
2. Cancer Ward.
4. Critique of Pure Reason.
2.(Aleksandr Solzhenitsyi) 3.(Erasmus) 4.(Immanuel Kant)

## TOSS-UP SOCIAL STUDIES

A pioneer in education for women, she began teaching in 1804. She taught in a Middlebury, Vermont seminary for girls and also opened a school for boys and girls in her father's home. In 1814 she opened a female college in her home. For ten points name this pioneer who wrote Plan for Improving Female Education in 1819.
ANSWER---(Emma Hart Willard)

## BONUS SOCIAL STUDIES

Given a description name the following psychological disorders.

1. A mental disorder in which fires are deliberately set.
2. A recurrent failure to resist the impulse to steal objects that are not needed.
3. An intense fear of a specific object, situation, or activity.
ANSWER---1. (Pyromania)
2.(Kleptomania)
3.(Phobia)

TOSS-UP MATH
In how many ways can eight people be seated around a circular table?
ANSWER---(5040)

## BONUS MATH

Convert the following degree measures to radians.

1. 165 degrees.
2. 240 degrees.
3. 660 degrees.
4. 1180 degrees.
ANSWER——1.(11pi/12) 2.(4pi/3) 3.(11pi/3) 4.(59pi/9)

## TOSS-UP SCIENCE

For ten points by what common name do we know the process of ecdysis which most snakes go through to shed their skin.
ANSWER---(Molting)
BONUS SCIENCE
Identify the number of chambers in the heart of the following organisms.

| 1. Mammals. | 2. Fish. | 3. Reptiles. | 4. Birds. | 5. Amphibians. |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| ANSWER-1.(4) | 2.(2) | 3.(3) | 4.(4) | 5.(3) |  |

